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PROCEEDINGS
OF THE
CONNECTICUT
STATE MEDICAL SOCIETY

1921

129th ANNUAL CONVENTION

HELD AT

HARTFORD, MAY 18th and 19th, 1921.

EDITOR

CHARLES WILLIAMS COMFORT, JR.

PUBLISHED BY THE SOCIETY

PRINTED, SEPTEMBER, 1921

The Connecticut State Medical Society does not hold itself responsible for the opinions contained in any article unless such opinions are indorsed by special vote. All communications intended for the Connecticut State Medical Society should be addressed to the secretary, Charles W. Comfort, Jr., M.D., 27 Elm Street, New Haven, Conn.

The next semi-annual meeting of the Connecticut State Medical Society be held in Bridgeport, May 17th and 18th, 1922.

The next semi-annual meeting of the Connecticut State Medical Society will be held in conjunction with that of the Litchfield County Medical Association, October 4th, 1921.

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OFFICERS OF THE SOCIETY.

1921-1922.

President.

CHARLES CARTLIDGE GODFREY, M.D., Bridgeport.

Vice-Presidents.

LEONE FRANKLIN LAPIERRE, M.D., Norwich.

FREDERICK BARTON BRADEEN, M.D., Essex.

Secretary.

CHARLES WILLIAMS COMFORT, JR., M.D., New Haven.

Treasurer.

PHINEAS HENRY INGALLS, M.D., Hartford.

COMMITTEES.

1921-1922.

STANDING COMMITTEES.

COMMITTEE ON SCIENTIFIC WORK.

James D. Gold, *Chairman*. Wilder Tileston.
The Secretary.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

| | |
|-----------------------------------|------------------------------------|
| Edward K. Root, <i>Chairman</i> . | James Murphy. |
| Charles C. Gildersleeve. | Thomas F. O'Loughlin. |
| William H. Donaldson. | The President. |
| Ralph S. Goodwin. | The Secretary. |
| Charles J. Foote. | The Committee on National Legisla- |
| Clarence E. Simonds. | tion. |

COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION.

| | |
|--|-------------------------|
| John C. Rowley, 1921, <i>Secretary</i> . | Robert L. Rowley, 1918. |
| Seldom B. Overlock, 1917. | Fritz C. Hyde, 1919. |
| Charles A. Tuttle, 1920. | |

COMMITTEE ON HONORARY MEMBERS AND DEGREES.

| | |
|--|--------------------|
| Charles J. Bartlett, <i>Chairman</i> . | Charles B. Graves. |
| George Blumer. | |

COMMITTEE ON MEDICAL DEFENSE.

| | |
|---------------------|-------------------|
| William R. Miller. | Frank H. Wheeler. |
| William A. LaField. | The Secretary. |

SPECIAL COMMITTEES.

COMMITTEE ON A SANATORIUM FOR THE NERVOUS POOR.

| | |
|-------------------------------------|-----------------------|
| Frank K. Hallock, <i>Chairman</i> . | George Blumer. |
| John L. Buel. | Frederick T. Simpson. |
| Charles A. Alton. | |

COMMITTEE ON HEALTH PROBLEMS IN EDUCATION.

Edward W. Goodenough, *Chairman*. Howard W. Brayton.
 Charles J. Foote. Charles P. Botsford.
 William L. Higgins.

COMMITTEE ON NATIONAL LEGISLATION.

D. Chester Brown.

COMMITTEE ON HOSPITALS..

Wilder Tileston, 1922, *Chairman*. Seldom B. Overlock, 1923.
 Harris F. Brownlee, 1922. Daniel C. Patterson, 1924.
 Daniel Sullivan, 1923. Patrick F. McPartland, 1924.

COMMITTEE ON THE HISTORY OF THE MEDICAL PROFESSION OF CONNECTICUT
 IN THE WORLD WAR.

Frank H. Wheeler, *Chairman*. George Blumer.
 D. Chester Brown. Walter R. Steiner.
 The Secretary.

COMMITTEE ON HEALTH INSURANCE.

Charles J. Foote, *Chairman*. Frank H. Wheeler.
 Daniel P. Griffin. Paul Waterman.
 Charles C. Gildersleeve. Charles E. Bush.
 Edward K. Root. Elias Pratt.
 George E. Tucker. Harry L. F. Locke.

COMMITTEE ON REQUIREMENTS FOR THE PRACTICE OF MEDICINE.

D. Chester Brown, *Chairman*. Albert E. Austin.
 George Blumer. Frank H. Barnes.
 John C. Rowley. George M. Smith.
 Charles B. Graves.

COMMITTEE ON PUBLICATION.

John E. Lane, *Chairman*. Charles J. Bartlett.
 The Secretary.

COMMITTEE ON PERMANENT FUNDS.

Walter R. Steiner, *Chairman*. Thomas F. Rockwell.
 The Treasurer.

AUDITORS.

Walter R. Steiner. Thomas F. Rockwell.

PROCEEDINGS.

DELEGATES.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Walter R. Steiner, July 1, 1920— John E. Lane, July 1, 1921—June 30,
 June 30, 1922. 1923.
 Alternate, Frank K. Hallock. Alternate, Charles J. Bartlett.

DELEGATES TO STATE ASSOCIATIONS.

MAINE.

George Thompson.

NEW JERSEY.

William H. Donaldson.

MASSACHUSETTS.

C. Floyd Haviland.

PENNSYLVANIA.

Robert L. Rowley.

NEW HAMPSHIRE.

Samuel M. Garlick.

RHODE ISLAND.

Witter K. Tingley.

VERMONT.

Seldom B. Overlock.

DELEGATE TO THE CONNECTICUT STATE HOSPITAL ASSOCIATION.

Wilder Tileston.

Alternate, William H. Carmalt.

HOUSE OF DELEGATES.

COUNCILORS.

FAIRFIELD COUNTY.

1920 FRANK W. STEVENS, Bridgeport.

HARTFORD COUNTY.

1921 WALTER R. STEINER, Hartford.

LITCHFIELD COUNTY.

1920 ELIAS PRATT, Torrington.

MIDDLESEX COUNTY.

1921 C. FLOYD HAVILAND, Middletown.

NEW HAVEN COUNTY.

1920 WILLIAM H. CARMALT, New Haven.

NEW LONDON COUNTY.

1921 CHARLES C. GILDERSLEEVE, Norwich.

TOLLAND COUNTY.

1920 THOMAS F. ROCKWELL, Rockville.

WINDHAM COUNTY.

1921 SELDOM B. OVERLOCK, Pomfret.

DELEGATES.

FAIRFIELD COUNTY.

Philip W. Bill.

D. Chester Brown.

Claudius V. Calvin.

Samuel M. Garlick.

James D. Gold.

Fritz C. Hyde.

Eli B. Ives.

HARTFORD COUNTY.

Charles D. Alton.

C. Brewster Brainard.

C. Charles Burlingame.

Thomas H. Denne.

Thomas C. Hodgson.

Edward H. Truex.

Robert M. Yergason.

LITCHFIELD COUNTY.

Charles H. Carlin.

MIDDLESEX COUNTY.

Jeremiah F. Calef.

James Murphy.

NEW HAVEN COUNTY.

Charles J. Bartlett.

Frank N. Loomis.

Edward T. Bradstreet.

James D. McGaughey.

Edward W. Goodenough.

Samuel D. Otis.

Frederick G. Graves.

Nelson A. Pomeroy.

Willis E. Hartshorn.

Charles E. Sanford.

NEW LONDON COUNTY.

William H. Gray.

Harold H. Heyer.

Albert C. Freeman.

TOLLAND COUNTY.

Wright B. Bean.

WINDHAM COUNTY.

Arthur D. Marsh.

Robert C. Paine.

MINUTES OF THE HOUSE OF DELEGATES.

FIRST SESSION.

The first meeting of the House of Delegates was held at the Hunt Memorial Building, Hartford, on Wednesday, May 18, 1921, at 9.15 A. M., Standard Time. The following Officers and Delegates were present during the meeting: President, George Blumer; Vice-President, William H. Donaldson; Treasurer, Phineas H. Ingalls; Secretary, Charles W. Comfort, Jr.; Councilors: Fairfield County—Frank W. Stevens; Hartford County—Walter R. Steiner; Litchfield County—Elias Pratt; Middlesex County—C. Floyd Haviland (by Roy C. Leak); New Haven County—William H. Carmalt; New London County—Charles C. Gildersleeve; Tolland County—Thomas F. Rockwell; Windham County—Seldom B. Overlock. Delegates: Fairfield County—P. W. Bill, D. C. Brown (by C. C. Godfrey), C. V. Calvin, S. M. Garlick, J. D. Gold, E. B. Ives. Absent: F. C. Hyde; Hartford County—C. D. Alton, C. B. Brainard, C. C. Burlingame, T. H. Denne, T. C. Hodgson, E. H. Truex, R. M. Yergason; Litchfield County—No delegate present. Absent: C. H. Carlin; Middlesex County—J. F. Calef. Absent: J. Murphy; New Haven County—C. J. Bartlett, E. T. Bradstreet, E. W. Goodenough, F. G. Graves, W. E. Hartshorn, J. E. McGaughey, S. D. Otis, N. A. Pomeroy. Absent: T. N. Loomis (notified unable to attend), C. E. Sanford; New London County—W. H. Gray, A. C. Freeman. Absent: H. H. Heyer; Tolland County—W. B. Bean; Windham County—A. D. Marsh, R. C. Paine.

REPORT OF THE PRESIDENT.

DR. GEORGE BLUMER, New Haven.

Members of the House of Delegates:

After the strenuous years of the war, and the even more hectic periods associated with the two recent influenza outbreaks, the past year, with its mild weather and its paucity of the usual pulmonary infections, must have seemed to many of us "flat, stale and unprofitable." There is therefore little for the President to report.

In the death of General W. C. Gorgas, the Society has lost, during the past year, one of its most distinguished honorary members. Born in Mobile, Alabama, in 1854, William Crawford Gorgas received his academic education at the University of the South and obtained his medical degree at the Bellevue Hospital Medical College in 1879. He entered the Medical Corps of the United States Army in 1880 and steadily rose to the highest rank, that of Surgeon-General. His masterly work in sanitation, particularly the eradication of yellow fever from Havana and the cleaning up of the Canal Zone, will stand forever as capital achievements in the practical application of Medical Science to the prevention of disease. His loss is to be regretted, both as one who has been an honor to this Society and one who has added to the lustre of American Medicine.

The semi-annual meeting of the Society was held last fall in Middletown, in conjunction with the Middlesex County Association. The authorities of the Connecticut Hospital for the Insane generously furnished not only a meeting place but also an excellent luncheon. The program was a varied one, and in addition to the formal papers there was an interesting exhibition of pathological brains and some very instructive charts showing the influence of heredity in certain mental diseases. The meeting was well attended and was a success in every way.

The various County meetings have been held at their appointed times and I have been present at either a fall or a spring meeting of every society except the Tolland County Society, neither of

whose meetings I was able to attend. The meetings were all of them well attended, and interesting programs were presented. At the fall meetings I suggested to the different societies the desirability of the profession informing itself on health insurance, a subject which then seemed likely to be brought up at the present session of the legislature. At the spring meetings in the rural counties the question of hospital centers and medical service in the remoter rural districts was brought up. At the meeting of the Litchfield County Association an informal but interesting discussion of these matters resulted. The meeting of the New Haven County Association was held later than usual in order that the members might inspect the new private pavilion of Grace Hospital, New Haven. The authorities of the hospital generously furnished the association with a meeting place and an excellent dinner.

In conclusion, I wish once more to thank the profession through you, its representatives, for the honor you have conferred upon me, and to express my appreciation of the hearty co-operation received from the officers of the Society and its several Committees.

Respectfully submitted,

GEORGE BLUMER, *President*.

Voted, to accept the report and place it on file.

REPORT OF THE SECRETARY.

DR. CHARLES W. COMFORT, JR., New Haven.

The Semi-annual Meeting of the Society was held at the Connecticut State Hospital, Middletown, in conjunction with the Semi-annual Meeting of the Middlesex County Medical Association. The members attending were luncheon guests of Dr. Haviland, the Superintendent. About one hundred members were present. Addresses and Papers by the following comprised the Scientific Session: Jessie W. Fisher, Middletown, President of the Middlesex County Association; George Blumer, New Haven, President of the State Society; Wilton E. Britton; Roy L. Leak; John I. Wiseman; John W. Wheeler. (See elsewhere for program of meeting.)

At this meeting the following resolution was unanimously passed:

“RESOLVED:—That because of the menace to the health of the people of this County and of the State, and the injury to their economic and general welfare caused by the continuing pest of mosquitoes, the Connecticut State Medical Society and the Middlesex County Medical Association endorse the effort of the Connecticut Anti-Mosquito Association to secure adequate State action for the complete and permanent elimination of mosquitoes from Connecticut, and urge the coming session of the General Assembly to take the required steps toward this end.” In due course, this resolution, with record of the Society’s vote was forwarded to The Honorable Clarence B. Emery, Chairman of the Committee on Public Health and Safety, at the time of the hearing on the proposed bill. The measure was ultimately defeated.

One Honorary Member died during the year,—General William C. Gorgas, United States Army.

The following deaths have been reported since the last annual meeting:

FAIRFIELD COUNTY

Edward Wilson Dupee, Bridgeport.
Edwards Montrose Smith, Bridgeport.
Peter P. VanVleet, Stamford.

HARTFORD COUNTY

Charles Ransom Upson, Bristol.
Calvin Weidner, Hartford.
George Kellogg Welch, Hartford.
Theodore Goodell Wright, New York City.

LITCHFIELD COUNTY

Lawrence Dillon Neary, Torrington.
William George Reynolds, Woodbury.

NEW HAVEN COUNTY

Treby Williams Lyon, New Haven.
Redfield Benjamin West, Guilford.

WINDHAM COUNTY

Charles Edwin Hill, East Killingly.
Theodore Raymond Parker, Willimantic.

The following new members have been admitted to the Society :

FAIRFIELD COUNTY

A. Apsel, Bridgeport.
B. J. Burns, Bridgeport.
M. L. Cheney, Bridgeport.
A. E. Coyle, Bridgeport.
B. J. Coyle, Bridgeport.
Z. F. Dunning, Milford.
H. D. Eaton, Ridgefield.
O. J. Groark, Bridgeport.
T. F. Healy, Stamford.
J. H. Howard, Bridgeport.
H. H. James, Bridgeport.
E. L. Kingman, Newtown.
E. D. Lamy, Stamford.
R. F. Lawless, Stamford.
J. S. Nickum, Bridgeport.
J. G. O'Connell, Bridgeport.
E. J. Pardanyi, Bridgeport.
B. C. Pasuth, Bridgeport.
M. J. Perry, Norwalk.
W. M. Stahl, Danbury.
O. L. Stringfield, Springdale.
D. E. Sullivan, South Norwalk.
C. C. Taylor, Bridgeport.
W. W. Tracey, Norwalk.
W. S. Wunderly, Bridgeport.
S. I. Zonn, Bridgeport.
T. E. Bergin, Cos Cob.

HARTFORD COUNTY

P. B. Battey, Wethersfield.
H. Berman, Hartford.
D. B. Cragin, Hartford.
C. C. Hall, Hartford.
F. B. Jennings, Bristol.
C. C. Kelly, Hartford.

S. V. Kibbe, West Hartford.
W. Leichner, Hartford
T. F. O'Brien, Hartford.
A. S. Oman, Southington.
S. H. Osborn, Hartford.
C. W. Page, Hartford.
P. A. Park, Bristol.
J. Stretch, Simsbury.
C. L. Thenebe, Hartford.
N. Vershbow, Hartford.

MIDDLESEX COUNTY

H. M. Chandler, Middletown.
J. A. S. Chandler, Middletown.
A. H. Cranz, Middletown.
R. R. Felt, Middletown.
C. C. Harvey, Middletown.
K. F. Wiseman, Middletown.

NEW HAVEN COUNTY

I. S. Alderman, New Haven.
M. E. Alexander, Waterbury.
A. N. Creadick, New Haven.
D. Deming, Waterbury.
E. C. Dunham, New Haven.
R. K. Gordon, New Haven.
H. W. Hersey, New Haven.
N. Labovitz, New Haven.
G. A. Leonard, Waterbury.
B. C. Marantz, New Haven
A. F. Massa, New Haven.
J. F. MacNish, New Haven.
W. McDonald, Jr., New Haven
H. F. Murray, Jr., New Haven.
L. H. Nahum, New Haven.
F. N. Otis, Meriden.
A. J. St. Lawrence, New Haven.
B. C. Sword, New Haven.
M. J. Tanner, New Haven.
A. A. Tower, Meriden.
J. Wertheimer, Waterbury.
M. C. Winternitz, New Haven.
L. H. Wright, New Haven.

NEW LONDON COUNTY

H. F. Lena, New London.
 W. E. McGinley, New London.
 A. H. Meyers, Mystic.
 T. J. Murray, New London.
 C. E. Pendleton, Colchester.
 B. J. Sohn, Norwich.
 T. Soltz, New London.
 C. R. Stillman, Mystic.
 D. Sussler, Taftville.

TOLLAND COUNTY

E. H. Metcalf, Rockville.
 H. Moore, Stafford Springs.

WINDHAM COUNTY..

H. C. Dixon, Danielson.
 K. T. Phillips, Putnam.
 J. F. McIntosh, Putnam.

The following table shows the present membership and the changes in membership which have taken place in the past year:

| County Associations | Total Membership | New Members | Reinstatements | Died | Suspended, Dropped | Removed or Resigned | Added by Transfer | Gain | Loss |
|-------------------------|------------------|-------------|----------------|------|--------------------|---------------------|-------------------|------|------|
| Fairfield County | 229 | 27 | 0 | 3 | 3 | 0 | 0 | 21 | 0 |
| Hartford County | 246 | 16 | 0 | 4 | 1 | 11 | 0 | 0 | 0 |
| Litchfield County | 64 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 5 |
| Middlesex County | 55 | 6 | 0 | 0 | 3 | 0 | 0 | 3 | 0 |
| New Haven County | 347 | 23 | 0 | 2 | 7 | 0 | 2 | 16 | 0 |
| New London County | 74 | 9 | 0 | 0 | 1 | 1 | 0 | 7 | 0 |
| Tolland County | 16 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| Windham County | 41 | 2 | 1 | 2 | 0 | 0 | 0 | 1 | 0 |
| Totals | 1,072 | 85 | 1 | 13 | 17 | 14 | 2 | 49 | 5 |

The Secretary desires to express his appreciation of the assistance rendered him throughout the year by Dr. John E. Lane, the

preceding Secretary of the Society. Dr. Lane's comprehensive knowledge has always been on call, and his thoughtfulness has frequently given suggestions, which have made possible the functioning of the present incumbent. From the Officers and Members, the Secretary bespeaks a tolerant forbearance and a charitable mind for his multitudinous shortcomings; familiarity with the duties, gained by experience, and discard of the paving-stones of procrastination shall yield a richer fruit of service.

CHARLES W. COMFORT, JR., *Secretary*

Voted, to accept the report and place it on file.

REPORT OF THE CHAIRMAN OF THE COUNCIL.

DR. WILLIAM H. CARMALT, New Haven.

Mr. President and Members of the House of Delegates:

The first meeting of the Council for organization for the current year was held on May 20th, 1920, at the Lawn Club in New Haven, immediately after the adjournment of the scientific session.

In the absence of the Secretary Dr. Steiner acted.

Dr. W. H. Carmalt was elected Chairman. Dr. Lane was elected Chairman of the Committee on Publication. On account of the limited attendance it was decided to defer further action: the meeting adjourned subject to the call of the Chairman.

The next meeting was held on August 2d, 1920, at the Graduates' Club in New Haven. All the members were present except Dr. Overlock, Windham Co., who was compelled to attend a meeting of the Board of Medical Examiners, and Dr. Rockwell of Tolland Co. Dr. Lane, former Secretary and Delegate to the American Medical Association, and Dr. D. Chester Brown, Chairman of the Committee on Requirements for the Practice of Medicine, were present by request.

To complete the organization of the Council, Dr. Steiner and Dr. Rockwell were appointed Auditors and the same gentlemen with the Treasurer were appointed to the Committee on Permanent Funds.

The Secretary's salary was voted at \$300 to include the editing of the Transactions, and he was authorized to employ additional stenographic assistance, if necessary.

At the request of Dr. Brown the consideration of the Medical Practice Act was taken up, and without going into the detailed and unnecessary conversations held in conjunction with the above mentioned Committee on Requirements for the Practice of Medicine, and the standing committee of the State Society on Public Policy and Legislation, at this and subsequent meetings held on November 3d and November 11th, 1920, and on March 11th, 1921, the following brief digest of the action is submitted. A fuller report will be presented by Dr. Brown.

It must be understood, at the beginning, that the whole matter was initiated at the request of a Legislative Commission, appointed by Governor Holcomb, for the consideration of a Civil Code; to, if possible, consolidate and simplify many and various, more or less allied, public administrative organizations; among them being the practice of medicine in its diverse, and, one may say, its illimitable phases. This Civil Code Commission requested the Chairman of the Council and Dr. Brown to formulate a bill representing the views of the Connecticut State Medical Society in the matter of such a consolidation with the intention, as was clearly understood at the time, that the Commission should consider it in conjunction with and after consultation with other organizations having authority to practice some phase of the art of healing the sick.

As a result of these conferences, it was determined in the first place not to attempt to draft a medical practice act *per se*, but to draw up a series of recommendations to the Commission based upon benefits to the Health of the Public; to be more definitely formulated after consultation, as above stated, with other similar organizations of assumed or asserted welfare objects, whether individual or general; to be finally promulgated through the State Board of Health. In order that it should not appear that this was an edict of the Connecticut State Medical Society, as against irregular practitioners, it was decided that no member or officer of the Society should appear before the Committee of the Legislature, when the bill was considered.

Instead of accepting the understanding of the joint committees above mentioned, that the communication was addressed to the Commission for its consideration only, the Commission forwarded it undigested, *in toto*, to the Legislature in session, introduced it, and published it as House Bill No. 860. It was at once understood by the public as emanating from the Connecticut State Medical Society, arrogating to itself all the privileges of practicing the Healing Art and that it repealed the functions of dentists and nurses as well as the claims of several irregulars, already recognized by law. The Civil Code Commission, however, quickly realizing its error, had the bill withdrawn and requested the State Board of Health to prepare a substitute bill, correcting certain confessedly objectionable features. It proposed to create an educational Board of Regents, similar to that in the State of New York, and had it introduced by the State Commissioner of Health, Dr. Black. But no! the mischief had been done; every cult and ism, psychological or mechanical, from Christian Science to Osteopathy, was up in arms, and at the hearing before the Committee on Public Health and Safety the room was packed with representatives of every form of irregular practice, claiming the right for every free-born American citizen, as well as every newly arrived immigrant (unable to understand our language) to doctor himself as he deemed best, and our sapient Solons apparently agreed, for the bill was overwhelmingly rejected.

A somewhat interesting but by no means unusual psychological attitude when medical matters are considered in our legislative halls was brought out. When first introduced, as stated, the bill was considered to be the offspring of the regular profession who are regarded as a hide-bound labor union, opposed to letting any outsider have a chance; hence the bill must be stamped on. When, however, none of the regular profession appeared in opposition to the crowd of cults and isms as in favor of the substitute bill introduced by the State Board of Health, there was nothing in the bill but Dr. Black; and the profession at large did not endorse it. It was therefore no good, and should be, and was, rejected!

The observance on the 12th of this month of the National Hospital Day, an anniversary of the birth of Florence Nightingale,

naturally directs attention to the hospitals throughout Connecticut and a fairly careful tabulation has given items that may be of interest. Omitting from consideration all individual private sanitarium, most of them having to do with so-called nervous diseases, drug addiction, etc., there are as follows: *1st*, the two state hospitals for the insane, one at Middletown greatly overcrowded with but 2,500 beds, the other at Norwich with 1,450 beds; *2d*, the tuberculosis sanitarium, five of which are also under state supervision with 780 beds; one is the Public Health Hospital No. 41, which is the William Wirt Winchester tuberculosis annex to the New Haven Hospital, situated on the Allington Heights in West Haven, with 500 beds; another is the Gaylord Farm Sanatorium near Wallingford with 130 beds, and the Wildwood Sanatorium annex to the Hartford Hospital with 50 beds; *3d*, various general hospitals throughout the state, 32 in number; of these, Fairfield County has 8 with 1,031 beds; New Haven County has 10 with 1,420 beds; Hartford County has 5 with 1,141 beds; Litchfield County has 3 with 160 beds; Windham County has 2 with 94 beds; New London County also has 2 with 202 beds; Middlesex County has 1 with approximately 100 beds, and Tolland County 1 with 28 beds.

| | | |
|------------------|---|--------------|
| Summarizing | 2 State Insane hospitals with | 3,950 beds |
| | 8 tuberculosis hospitals with | 1,460 " |
| | 32 general and contagious hospitals with | 4,176 " |
| Total beds | | <u>9,586</u> |

It has been noted that Connecticut is one of the very few states that has a hospital in every county. It is now nearly a century since the first one was started; the Charter for the General Hospital Society of Connecticut was granted in 1826, the New Haven Hospital was built in 1829. In looking over the very early records of the Society your reporter found a statement that Dr. Swan of Westville was authorized to travel through Fairfield County (on horseback) to solicit funds to build the hospital; on rendering his account it was found that on his return after some weeks, his expenses exceeded his collections by \$1.50. It looks as if the yearly deficit, which the hospital still enjoys, was congenital. The

last auditors' report, however, shows a book valuation of lands, buildings, equipment, and invested funds of approximately \$4,200,000.

The constantly increasing demand for hospital accommodations of which we are all well aware, aside from the growth in population and from the better care in nursing and attention one gets, where caring for the sick is the *business*, is largely due to two sources: *1st*, the development of the necessity for laboratory research in the diagnosis and treatment of strictly medical cases, impossible to be carried out in private practice except at a prohibitive expense; and *2d*, in the immense increase of surgical work brought about by asepsis only to be carried out with hospital accommodations on any practical scale. These reasons, together with advances in sanitation and epidemiology, have in your reporter's lifetime brought up the average of human life in civilized nations from 33 to 45 years.

The Council met again on April 25th, 1921, at 12 o'clock at The Hartford Club.

The members of the Council were all present and also Dr. Ingalls, the Treasurer, by request.

Dr. Ingalls gave a review of the finances of the Society for the last four years, showing a steady increase of the expenses and a corresponding diminution of the annual balance, demonstrating that to meet the expenses of the coming year it would be necessary to increase the per capita assessment to \$4.00. (His report in full will be found on another page.) He also called attention to the fact that certain clerks of the county associations persistently violated the conditions of Section 10, Chapter XII, of the By-Laws of the State Society as to forwarding to him reports and monies collected at the times designated therein, thus rendering it impossible for him, the Treasurer, to pay bills as contracted. He requested the councilors of the respective counties, whose clerks were thus dilatory, to notify them of their duties and to endeavor to get them to obey the By-Law or have some one elected who would. The notified councilors consented to do this.

The following names for officers, committee men and delegates were voted to be submitted to the House of Delegates for its action:

For President, Dr. Charles C. Godfrey of Bridgeport.

For Vice-Presidents, (1) Dr. Leone F. LaPierre of Norwich, (2) Dr. Frederick B. Bradeen of Essex.

For Secretary, Dr. Charles W. Comfort, Jr., of New Haven.

For Treasurer, Dr. Phineas H. Ingalls of Hartford.

For Committee on Scientific Work, Dr. James D. Gold of Bridgeport, Chairman, Dr. Wilder Tileston of New Haven, and the Secretary.

For Committee on Medical Examination and Medical Education, Dr. John C. Rowley of Hartford, to succeed himself.

For the Committee on Public Policy and Legislation, Dr. Edward K. Root of Hartford Co., Chairman, Dr. Charles C. Gildersleeve of New London Co., Dr. William H. Donaldson of Fairfield Co., Dr. Ralph S. Goodwin of Litchfield Co., Dr. Charles J. Foote of New Haven Co., Dr. Clarence E. Simonds of Windham Co., Dr. James Murphy of Middlesex Co., Dr. Thomas F. O'Loughlin of Tolland Co., the President-elect, and the Secretary.

For the Committee on Honorary Members and Degrees, Dr. Charles J. Bartlett of New Haven, Dr. Charles B. Graves of New London, Dr. George Blumer of New Haven.

For Delegate to the American Medical Association for 1921-1923, Dr. John E. Lane of New Haven, to succeed himself.

For Alternate to above, Dr. Charles J. Bartlett of New Haven, to succeed himself.

For Delegates to State Associations:

To Maine, Dr. George Thompson of Taftville.

" Massachusetts, Dr. C. F. Haviland, Middletown.

" New Hampshire, Dr. S. M. Garlick, Bridgeport.

" New Jersey, Dr. W. H. Donaldson, Fairfield.

" Pennsylvania, Dr. Robert L. Rowley, Hartford.

" Rhode Island, Dr. W. H. Tingley, Norwich.

" Vermont, Dr. S. B. Oyerlock, Pomfret.

The following recommendations to the House of Delegates for action were also voted, viz.

First, that the dues for the coming year be \$4.00 per capita.

Second, that the next annual meeting be held in Bridgeport on Wednesday and Thursday, May 17th and 18th, 1922.

Third, that the next semi-annual meeting be held in conjunction with that of the Litchfield County Medical Association on Tuesday, October 4th, 1921, at a place to be designated by the Litchfield County Association.

Fourth, that the following change in the By-Laws, Chapter VII, Section 1, first sentence to read, "The Council shall consist of one Councilor from each county and the President, the Secretary, and the Treasurer ex-officio."

Fifth, to publish this recommendation with the notice of the annual meeting in order to secure action thereon at the coming meeting.

The Council adjourned to meet on Wednesday, May 18th, at 8.45 A. M. Standard Time, at the Hunt Memorial Building, Hartford.

Respectfully submitted,

W. H. CARMALT,

Chairman of the Council.

Voted, to accept the report and place it on file.

REPORTS OF THE COUNCILORS.

Fairfield County, Dr. Frank W. Stevens, Bridgeport, Councilor.

Mr. President and Gentlemen of the House of Delegates:

The Fairfield County Medical Association has held two interesting and instructive meetings during the past year. Nothing of unusual interest has occurred during the year. The hospitals throughout the County are doing excellent work although handicapped by the shortage of nurses.

Our present membership is 226. Twenty-six new members were admitted, one was reinstated during the year, three were dropped and four died.

Respectfully submitted,

FRANK W. STEVENS,

Councilor.

Hartford County, Dr. Walter R. Steiner, Hartford, Councilor.

Mr. President and Gentlemen of the House of Delegates:

The Hartford County Medical Association has had two well-attended meetings during the year. The first one was held at Cheney Hall, South Manchester, and papers were then read by Dr. Wilton E. Britton, State Entomologist, on "Mosquito Extermination in Connecticut"; by Drs. H. R. Sharpe, W. R. Tinker and C. C. Burlingame, on "Relations between Physicians in Industry and General Practice," and by Dr. Joseph A. Blake of

New York, on the "Application of War Methods to the Treatment of Fractures in Civil Life." At the spring meeting papers were read by Dr. H. L. F. Locke on the "Problem of the Underweight Child"; by Dr. R. M. Yergason on the "Pedograph as an Aid to Diagnosis"; by Dr. P. F. McPartland on "Perforative Lesions of the Stomach and Intestines," and by Drs. D. J. Roberts and A. C. Heublein on "Advances in Radiology." At this meeting the retiring President surprised us by delivering a poem as his Presidential Address on "Finis Orbis Medici," which in poetical ability equaled the best production of Lemuel Hopkins, who was our Medical poet in the pre-Revolutionary days.

The hospitals have had a year of fruitful activity. The Hartford Hospital hopes soon to break ground for its maternity ward and the Hall-Wilson pathological laboratory, while the St. Francis Hospital has its maternity ward now in the process of erection. The New Britain General Hospital is planning new buildings to fulfill a wider sphere of usefulness and the Manchester Memorial Hospital, less than a year old, is proving a useful adjunct to its community.

We now have 246 members of the Association, or a loss of one over the number reported last year. During the year three have died (Drs. Calvin Weidner, Charles R. Upson and George K. Welch). Their obituaries will be published in the Transactions so that the record of their lives will thus be permanently recorded. One member has moved from the county, eleven have been suspended for non-payment of dues and sixteen new members have been elected.

Respectfully submitted,

WALTER R. STEINER,
Councilor.

Litchfield County, Dr. Elias Pratt, Torrington, Councilor.

Mr. President and Gentlemen of the House of Delegates:

The Litchfield County Medical Society is still in its usual prosperous condition. The membership shows very little change in

numbers. The hospitals in the County are doing very excellent work and are meeting the needs of the people successfully. Two very successful meetings were held during the year. The Semi-Annual Meeting, in Washington, was well attended. The visit of our President, Doctor Blumer, at the Annual Meeting in Winsted was an inspiration to all present. These meetings were held in the evening instead of at midday. We believe the members like this plan much better, and we hope for a larger attendance as a result.

We have lost during the year two members by death. Dr. William G. Reynolds of Woodbury, who graduated from Yale Medical School in 1897, and Dr. Lawrence D. Neary of Torrington, a graduate of Georgetown in 1913.

Respectfully submitted,

ELIAS PRATT,
Councilor.

*Middlesex County, Dr. C. Floyd Haviland, Middletown,
Councilor.*

(Dr. Haviland, through illness, represented by Dr. Roy C. Leak.)

Mr. President and Gentlemen of the House of Delegates:

The number of registered medical practitioners in Middlesex County, eligible for membership in the Middlesex County Medical Association, is seventy-five, and the membership of the association is fifty-five, it thus representing a large majority of the profession in the County. Such membership represents a net gain for the year of five. The financial condition of the association is excellent, with all bills paid, and a balance in the bank.

The fall meeting, held October 14, 1920, was a joint meeting of the County and State Medical Associations. It was held at the Connecticut State Hospital, and a portion of the program was contributed by members of the hospital staff, in an effort to present some phases of the relationship existing between psychiatric problems and general medical practice.

The spring meeting, held April 14, 1921, was also a joint meeting, it being held in conjunction with the Central Medical Association (of Middletown). The feature of the meeting was a historical address by the President, Dr. Jessie W. Fisher, which revealed the rich heritage of medical traditions built up during the many years of the association's existence. It further revealed the fact that the association has been remiss in years past in making little effort to preserve historical records and documents of the greatest interest and value, and it was the general sentiment of the members present that more care should be exercised in such regard in the future.

The valuable work done by the Middlesex Hospital, Middletown, has resulted in ever-increasing demands upon its resources, which have been taxed to the utmost. To meet the situation, largely through the initiative of members of the County Association, a drive for a building fund was carried on, and approximately \$172,000 was raised to build an addition to the hospital, of fifty beds capacity. On May 12, 1921, the cornerstone of the new building was laid in the presence of the Governor of the State, the Hon. Everett J. Lake, and other notables. It is estimated that with equipment, the new structure will cost approximately \$200,000, but with the public interest which has been manifested in the hospital, there appears no reason to doubt that sufficient funds will be raised to meet the entire expense.

A Journal Club of the staff of the Middlesex Hospital has been organized, and at its weekly meetings there is a general discussion of current medical literature, after it has been summarized and presented by the different members in turn.

A clinic, open to all members of the medical profession, is held each Wednesday at the Middlesex Hospital, at which both medical and surgical cases are discussed. The number of visitors at the clinics has shown a steady and gratifying increase.

Largely through the efforts of the members of the association, funds were allowed for a meat inspector for the city of Middletown, and a competent inspector has been appointed to such position.

Fifteen of the practitioners of Middletown have assisted the Physical Director of the Middletown Y. M. C. A. in examining members of the gymnastic classes, and in suggesting physical training directed to meet specific needs.

The Central Medical Association remains closely affiliated with the County Medical Association, and has held monthly meetings throughout the past winter. The dental profession was invited to attend one meeting, at which the topics of devitalized teeth and focal infections were discussed. The February meeting was of unusual interest, Professor Raymond Dodge, Professor of Psychology, Wesleyan University, addressing the association on research work he has done in studying and recording the movements of the internal ocular muscles.

A spirit of harmony and good will prevails throughout the profession of the county.

Respectfully submitted,

C. FLOYD HAVILAND,
Councilor.

*New Haven County, Dr. William H. Carmalt, New Haven,
Councilor.*

Mr. President and Members of the House of Delegates:

The membership of the New Haven County Medical Association was given last year as 332; twenty-three new members were admitted; two have died and one moved to another county in the state, making the total membership to date 352. The deaths were Dr. Redfield B. West of Guilford and Dr. Treby W. Lyon of New Haven; the obituary notice of the latter was read by Dr. E. P. Pitman.

The clerk reports having collected dues of \$843, of which \$123 was from arrears. After deducting for clerical services and expenses and for the entertainment of the State Society last year and turning over \$758.70 to the State Treasurer, there is in Savings Bank and in checking account \$655.40 on hand. It is quite evident we have a very efficient clerk.

The regular county meetings were held: The Semi-Annual at Waterbury on October 28th, 1920, and the Annual in New Haven on May 5th inst., at Grace Hospital by invitation of the Board of Directors to inspect the new private room pavilion nearly completed.

Your Councilor was unable, owing to conflicting official duties elsewhere, to be present at the semi-annual meeting. The Secretary reported a good attendance and interesting papers as follows, viz: Removal of Injured Semi-lunar Cartilage, by Dr. James L. Moriarty of Waterbury; Results of the Treatment of Pernicious Anemia by Transfusion, by Dr. Arthur B. Dayton of the New Haven Hospital, by invitation; and the Mining and Manufacture of Radium by moving pictures, by the Radium Chemical Company of Pittsburgh, Pennsylvania.

At the annual meeting, held as before stated by invitation of the Board of Directors at Grace Hospital, New Haven, an unprecedented large number were present. The following papers were read: first, "The Acute Surgical Abdomen," by Dr. Edwin H. Johnson of Naugatuck, discussed by Dr. Mendillo; second, "Thrombo-angitis obliterans," by Dr. S. G. Goldberg of New Haven; discussed by Drs. George Blumer and Nelson A. Ludington of New Haven; and third, "Acute Osteomyelitis," by Dr. S. C. Harvey of New Haven; discussed by Dr. Wm. F. Verdi of New Haven.

Dr. Goldberg's paper was based on the observation of 21 cases in his own practice, several of whom were shown in patients at the Grace Hospital in various stages of the disease. Dr. Harvey's paper had an especial interest in its historical standpoint, dating back to the classical article on Necrosis by Dr. Nathan Smith, the founder of the Yale Medical School, who anterior to 1832 initiated trepanning of the bone, as practiced at the present day.

The holding of this meeting at the Grace Hospital is of especial interest as marking the liberalizing of an institution which 32 years ago was founded under exclusively homeopathic auspices, the incorporators being distinctly ostensibly of that belief, and the official seal, which under its charter the corporation was authorized to change "at pleasure," still bears the legend of "similia simili-

bus curantur," with a portrait of the bust of our old friend Hahnemann. Yet a large majority of the Board of its Physicians and Surgeons are enrolled as members of the Connecticut State Medical Society, all of whom must subscribe to the pledge not to "practise or lend support to any exclusive or irregular system of medicine," as demanded by the American Medical Association. Officers of both the State Society and of the American Medical Association are included in the Attending Staff.

The present Directors are earnestly trying to bring the hospital up to a high degree of modern medical efficiency, and it bids fair to become a first rate general community hospital. It is a matter of congratulation that the bars between the two state medical societies are thus being let down, leading the way eventually, it is to be hoped, to having but one Board of Medical Examiners for licensing practitioners of medicine for the whole state.

Respectfully submitted,

W. H. CARMALT,
Councilor.

New London County, Dr. Charles C. Gildersleeve, Norwich,
Councilor.

Mr. President and Gentlemen of the House of Delegates:

The membership of the New London County Medical Society is now seventy-four. We have admitted nine men:

C. K. Stillman, M.D., Mystic.
Thomas Soltz, M.D., New London.
A. H. Myers, M.D., Mystic.
Thomas J. Murray, M.D., New London.
David Sussler, M.D., Norwich.
Boris J. Sohn, M.D., Norwich.
Cyrus Pendleton, M.D., Colchester.
W. E. McGinley, M.D., New London.
Hugh M. Lena, M.D., New London.

Two members of the Society,

James F. Young, M.D.,
John Daniel Donahoe, M.D.,

have been dropped for non-payment of dues.

We have lost no member by death.

Our Semi-Annual Meeting was held Oct. 7, 1920, at the Crocker House, New London, with Vice-President Hugh B. Campbell, M.D., in the chair. About fifty physicians were present. We had the privilege of having Kate Mead, M.D., delegate from Middlesex County, with us, and likewise had the pleasure of listening to D. Chester Brown, M.D., of Danbury.

Dr. Brown discussed the subject "Public Health and the Medical Practice Act," and made the subject so plain that it was a source of inspiration and instruction to the New London County men.

Thomas J. Woodruff, M.D., read an interesting paper upon the subject of "The Significance of Retinal Changes in Systemic Diseases." The paper was ably discussed by A. J. LaPierre, M.D.

Dr. E. W. Britton, State Entomologist, gave a talk on "Mosquito Extermination." By vote, the Society endorsed his work. Also a motion picture was shown, showing how radium was mined and prepared for use.

The One Hundred Thirtieth Annual Meeting was held Thursday, April 7, 1921, at the Norwich State Tuberculosis Sanatorium. There were about two hundred physicians present and the meeting was intensely interesting. Dr. Blumer, our President, who is always welcome in Norwich, was present, and ably discussed all the papers presented.

The New London County Medical Society is greatly indebted to Stephen J. Maher, M.D., Chairman of the State Tuberculosis Commission, to the Commission, and to Dr. Campbell, Superintendent of the Sanatorium and President of the New London County Medical Society, for making it possible for the Society to hold its annual meeting at the Sanatorium.

Stephen J. Maher, M.D., New Haven, Chairman State Tuberculosis Commission, gave a paper entitled "What about a Cure or Preventive of Tuberculosis," and Joseph Walsh, M.D., Philadelphia, Pa., President White Haven Sanatorium, White Haven, Pa., gave a paper entitled "Errors in the Diagnosis of Pulmonary Tuberculosis." Both of the subjects were handled in a scholarly

manner by their authors and together with the discussion which followed the papers, made those present congratulate themselves that they had the privilege of attending the meeting.

Dr. Campbell and his assistants then showed some interesting stereoscopic X-Ray studies of chest disease from the X-Ray Laboratories of the Norwich State Tuberculosis Sanatorium. A fine dinner completed the programme.

All the hospitals of the county have had a very active year.

Respectfully submitted,

CHARLES CHILD GILDERSLEEVE,

Councilor.

Tolland County, Dr. Thomas F. Rockwell, Rockville, Councilor.

Mr. President and Gentlemen of the House of Delegates:

The Tolland County Medical Association has at present a membership of sixteen, including two new members admitted during the year, Dr. Harry Moore of Stafford Springs and Dr. Elliott H. Metcalf of Rockville. We lost one member, Dr. Gilbert Smith, who has left Mansfield Center and moved to Crownsville, Maryland.

The regular Semi-Annual Meeting was held on Tuesday, October 19, 1920 at the Johnson Memorial Hospital, Stafford Springs. Dr. Joseph F. O'Brien of Hartford gave a very instructive and interesting talk on "The Treatment of Deformities following Infantile Paralysis," the subject being made especially clear by the use of lantern slides. A unique feature of the meeting which was much appreciated by the members was a motion picture depicting "The Mining and Manufacture of Radium." This was followed by a most enlightening talk by Dr. A. C. Heublein of Hartford on the subject "Therapeutic Uses of Radium." Dr. Thomas G. Alcorn of Thompsonville assisted by Dr. John P. Hanley of Stafford Springs conducted a very interesting surgical clinic.

The 129th Annual Meeting was held in Rockville on Tuesday, April 19, 1921. Dr. Paul Waterman of Hartford read a very instructive paper on "Endocrine Disorders." This was ably

discussed by Dr. William R. Miller and others. We also had the pleasure of hearing Dr. Stanley H. Osborn, Director of the Bureau of Preventable Diseases, talk on "The Physician and the Case of 'The Community.'" It was a most satisfactory meeting although not largely attended.

Respectfully submitted,

T. F. ROCKWELL,
Councilor.

Windham County, Dr. Seldom B. Overlock, Pomfret, Councilor.

Mr. President and Gentlemen of the House of Delegates:

The report of the Councilor from Windham County is purposely brief from the fact that the report last year was inordinately extended.

The meetings of the Society during the year were well attended and successful beyond the ordinary. The April meeting was especially interesting from the fact that State President Dr. Blumer and Health Commissioner Dr. Black were present and both addressed the meeting. In addition there were more visitors present from other county societies than ever before in the history of the society. The members of the local society feel that they were especially favored the present year and hope that in the future the same good fortune may attend them.

Both hospitals in the county, St. Joseph's at Willimantic, and the Day Kimball at Putnam, have had busy and successful years. The Day Kimball has erected a new brick fireproof wing which materially increases its capacity. The upper story, which will contain a new operating room and maternity ward, was not completed owing to lack of funds. It is, however, probable that it may be finished during the present year. A new feature in the work of the hospital, from which much benefit is expected, is a monthly tuberculosis clinic by Dr. Hugh R. Campbell of the State Sanatorium at Norwich. By this arrangement, the physicians and district nurses are able to refer suspected tuberculosis cases much earlier than otherwise with corresponding advantages to both the patient and the community.

Two members, Dr. C. E. Hill and Dr. T. R. Parker, have died during the year. They were members of long standing, good men and true. Three new men have been added to the list of members, making the number larger than that of any previous year.

Respectfully submitted,

S. B. OVERLOCK,

Councilor.

Voted, after the submission of each report, to accept the report and place it on file.

REPORT OF THE TREASURER.

DR. PHINEAS H. INGALLS, Hartford.

CONNECTICUT STATE MEDICAL SOCIETY, FROM
MAY 19, 1920, TO MAY 18, 1921.

RECEIPTS.

| | | |
|---------|---|------------------|
| 1920 | | |
| May 19 | Balance from old account | \$ 543.97 |
| Sept. 7 | Herbert Thoms, New Haven County | 639.90 |
| Nov. 15 | C. Brewster Brainard, Hartford County ... | 627.00 |
| | H. B. Hanchett, Litchfield County | 135.00 |
| 27 | A. C. Freeman, New London County | 100.00 |
| | Herbert Thoms, New Haven County | 75.00 |
| | R. C. Paine, Windham County | 60.00 |
| | J. E. Flaherty, Tolland County | 22.00 |
| 1921 | | |
| Jan. 4 | Herbert Thoms, New Haven County | .60 |
| | Withdrew from Savings Bank, Russell Fund | 650.00 |
| Apr. 11 | H. B. Lambert, Fairfield County | 448.20 |
| 26 | Withdrew from Savings Bank, O. C. Smith Fund | 15.00 |
| 29 | A. C. Freeman, New London County | 72.80 |
| May 2 | C. B. Brainard, Hartford County | 15.60 |
| 9 | R. C. Paine, Windham County | 69.60 |
| | S. S. Campbell, Middlesex County | 140.40 |
| | H. B. Hanchett, Litchfield County | 8.10 |
| 14 | Herbert Thoms, New Haven County | 43.20 |
| 16 | J. E. Flaherty, Tolland County | 13.10 |
| | | <hr/> \$3,679.47 |

EXPENSES.

| | | | |
|-------|----|---|------------|
| 1920 | | | |
| July | 9 | The Tuttle, Morehouse & Taylor Company | \$ 121.95 |
| | | Miss J. G. Buhler, Stenography | 71.69 |
| | | Hazel J. Thompson, Stenography | 16.20 |
| | | New Haven County..... | 13.15 |
| | | Henry G. Barbour, delegate Pharmaceutical Convention | 18.00 |
| | | J. E. Lane | 43.00 |
| Sept. | 6 | J. F. Rogers, Editing Proceedings | 160.70 |
| | | D. R. Lyman, Annual Meeting | 30.00 |
| | | J. H. Holmes, Legal Services | 12.00 |
| | | The Tuttle, Morehouse & Taylor Company | 11.75 |
| Nov. | 16 | Amer. Med. Association, Rulings | 3.00 |
| | | John H. Holmes, Typewriting | 12.00 |
| | | The Tuttle, Morehouse & Taylor Company | 1,400.00 |
| 1921 | | | |
| Jan. | 4 | The Tuttle Morehouse & Taylor Company | 896.36 |
| Apr. | 25 | Litchfield County Med. Ass'n. from O. C. Smith Fund | 6.00 |
| | | Middlesex County Med. Ass'n. from O. C. Smith Fund | 6.00 |
| | | Tolland County Med. Ass'n. from O. C. Smith Fund | 3.00 |
| May | 16 | P. H. Ingalls, Salary Treasurer | 25.00 |
| | | Phoenix National Bank, Box Rent | 5.00 |
| | | R. C. Knox, Treasurer's Bond..... | 5.00 |
| | | Balance to new account | 819.67 |
| | | | <hr/> |
| | | | \$3,679.47 |

THE G. W. RUSSELL FUND.

| | | | |
|------------------------------------|----|---|------------|
| 1920 | | Cash reported at Annual Meeting, 1920.... | \$2,101.59 |
| July | 1 | Coupons Railway and Lighting Co. | 112.50 |
| | | Coupons Consolidated Railway Co. | 40.00 |
| | | Coupons Gaslight Co. | 20.00 |
| | | Interest | 42.02 |
| 1921 | | | |
| Jan. | 1 | Coupons Railway and Lighting Co. | 112.50 |
| | | Coupons Consolidated Railway Co. | 40.00 |
| | | Coupons Gaslight Co. | 20.00 |
| | | Interest | 46.30 |
| | | | <hr/> |
| | | | \$2,534.91 |
| Jan. | 4. | Withdrew to Society Treasury | 650.00 |
| | | | <hr/> |
| Balance on hand May 18, 1921 | | | \$1,884.91 |

The Fund consists of
 5 \$1,000 1st and Refunding Mortgage
 Bonds, Conn. R. & L. Co.
 2 \$1,000 50 year Debenture Bonds, Con-
 solidated Railway Co.
 1 \$1,000 1st Mortgage Bond, Hartford City
 Gas Light Co.

THE O. C. SMITH FUND.

| | | |
|---------|--|----------|
| | Cash reported at Annual Meeting, 1920 | \$133.82 |
| 1920 | | |
| July 1 | Coupon Gas Light Co. | 20.00 |
| | Interest | 2.66 |
| Jan. 1 | Coupon Gas Light Co. | 20.00 |
| | Interest | 3.12 |
| | | <hr/> |
| | | \$179.60 |
| Apr. 26 | Withdrew to pay dues of indigent members | 15.00 |
| | | <hr/> |
| | Balance on hand May 18, 1921..... | \$164.60 |

The Fund consists of
 1 \$1,000 1st Mortgage Bond, Hartford
 City Gas Light Co.

Respectfully submitted,

PHINEAS H. INGALLS,
Treasurer.

HARTFORD, May 18, 1921.

This will certify that we have this day audited the accounts of the Treasurer and find them correct and the securities listed above to be in his possession.

T. F. ROCKWELL,
 WALTER R. STEINER,
Auditors.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK.

DR. ERNEST A. WELLS, Hartford, *Chairman.*

Mr. President and Gentlemen of the House of Delegates:

The Committee on Scientific Work has met but once. The program for the semi-annual meeting last fall was arranged by

correspondence with the local society. The program for the present meeting is published elsewhere in the proceedings.

Respectfully,

ERNEST A. WELLS,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON MEDICAL EXAMINATION AND MEDICAL EDUCATION.

DR. ROBERT L. ROWLEY, Hartford, *Secretary.*

Mr. President and Gentlemen of the House of Delegates:

Your Committee on Medical Examination and Medical Education has held six meetings during the past year and has examined a total of one hundred and thirty-seven applicants. Some of these took the examinations more than once during the year so that the one hundred and thirty-seven applicants represent a total of one hundred and twenty-three persons.

One hundred and nine persons passed the examinations satisfactorily and were recommended to the State Department of Health for licensure. Of the fourteen who failed to meet the requirements, seven were graduated from medical colleges rated "A," five from medical colleges rated "B" and two from foreign medical colleges.

For some time the Board has fully appreciated that a few applicants whose qualifications were especially well known were subjected to unnecessary inconvenience and hardship by being required to undergo the formal written examinations, and so within the past year there has been inaugurated the practice of permitting such applicants to appear before the Board for oral examination with consideration of their credentials. The Board feels satisfied that such a practice may be safely followed provided there is exercise of due care, caution, and conservatism.

Whenever such an applicant fails to receive the approval of the Board he is permitted to take the written examinations at any subsequent regular period.

During the past year there were considered in accordance with this plan, fourteen applicants, of whom two failed to receive the approval of the Board.

Seven applicants were considered without written examination under the provision of the law as relates to those who were graduated prior to 1893. All but one of these received the approval of the Board.

The Board regretfully records the fact that at our written examinations in March one applicant was dismissed on account of cribbing.

Respectfully submitted,

ROBERT L. ROWLEY,

Secretary.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

DR. EDWARD K. ROOT, Hartford, *Chairman.*

Mr. President and Gentlemen of the House of Delegates:

The Committee on Public Policy and Legislation has obtained copies of all bills introduced in the Connecticut Legislature in any way relating to public health or of direct interest to the medical profession. After the time had expired for the introduction of new business the committee were called together and in addition there were present at the meeting Dr. Edward Hooker, chairman of the legislative committee of the Homeopathic Society, Dr. Paul Waterman, representing the committee on Health Insurance, and Dr. Walter Steiner, delegate to the American Medical Association. In all, twenty-nine bills were submitted for discussion and after careful consideration it was decided that the

most important from the professional point of view were the bill modifying the present statute concerning vaccination, House Bill No. 272 regarding vivisection and the Medical Practice Act, in preparation by the committee appointed for that purpose. A large number of bills could be properly referred to the Commissioner of Health as they covered rules or regulations directly under the supervision of the Department of Health and no further consideration was necessary on the part of your committee.

It was not considered advisable to directly oppose the vaccination exemption bills in their present form, but a compromise was effected which practically results in the registration of all cases who conscientiously object to vaccination, thus rendering it easily possible to identify, isolate or vaccinate such individuals in case of an outbreak of smallpox.

House Bill No. 272 prohibited vivisection and through some misunderstanding of the date of the hearing no one appeared representing the Yale Medical School regarding this bill. Your chairman appeared in opposition and the bill was killed in committee.

The remaining bills of interest to the Society are the bill concerning the practice of chiropody and the substitute for House Bill No. 860, the joint work of the Committee on the Requirements for the Practice of Medicine, the Civil Code Commission and the Commissioner of Health.

As a result of the meeting of March 16, 1921, held in New Haven, it was decided that there should be no concerted effort made for a large attendance for the committee hearing on the 23d of March. It probably would have made no difference if the profession had been largely represented, for the bill was defeated by a very large vote. It seems fairly obvious to your chairman that there is no demand outside of thoughtful members of the medical profession, certainly not among the public at large, for regulation or further legislation of medical practice. There is nothing in the attitude of the public to suggest that they desire any restriction or limitation of their individual liberty to employ at their will charlatans, quacks, natureopaths, mental healers, or in fact any variety of healer that can gain their confidence. It

does not seem probable that any united effort on the part of the medical profession is likely to alter this condition of affairs. Reform in this respect must come from the general public and not from the medical profession, for it is obvious that propaganda on the part of our profession is only misunderstood and attributed to selfish motives. Public opinion is, as a rule, warmly in favor of scientific sanitary improvements, of any regulations concerning purity of food, for the enforcement of municipal cleanliness and measures of similar broad scope for the improvement of public health. Any restriction of individual liberty in the choice of methods of healing will require a long course of education of public sentiment before it can be achieved.

All of which is respectfully submitted.

E. K. Root,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON HONORARY MEMBERS AND DEGREES.

DR. CHARLES J. BARTLETT, New Haven, *Chairman.*

Mr. President and Gentlemen of the House of Delegates:

At the last annual meeting, Dr. Edward R. Baldwin was proposed for honorary membership. His name is accordingly before you for action at this meeting.

As an honorary member, your committee nominates Dr. Herbert E. Smith. Dr. Smith was formerly Dean of the Yale Medical School and a member of this Society. His present residence is Los Gatos, California.

C. J. BARTLETT,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON A SANATORIUM FOR THE NERVOUS POOR.

DR. FRANK K. HALLOCK, Cromwell, *Chairman*.

About a month ago this Committee expected to have the pleasure and satisfaction of reporting that a State Sanatorium for the Nervous Poor was in process of becoming a reality. The Bill to establish a State Infirmary had been approved by the Committee on Humane Institutions and was known to have the support of Governor Lake, but the State Finance Commission reported that this year state funds will not be available for the project and the matter will unquestionably be referred to the next session of the Legislature. Assurances have been given your Committee that in case a State Infirmary is established a department for nervous cases will be organized. Your Committee therefore would suggest that it be continued in force with full expectation that two years from now its work will have been successfully accomplished.

Respectfully submitted,

FRANK K. HALLOCK,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON HEALTH PROBLEMS IN EDUCATION.

DR. EDWARD W. GOODENOUGH, Waterbury, *Chairman*.

Dr. Goodenough made an oral report, that the Committee was at work, cooperating with the Council on Health and Public Instruction of the American Medical Association; that the results accomplished did not warrant a complete report at this time; and requested that the Committee in its present or altered form be continued.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON NATIONAL LEGISLATION.

DR. D. CHESTER BROWN, Danbury.

Dr. Brown not present ; report postponed until the next session.

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE.

DR. WILLIAM H. DONALDSON, M.D., Fairfield, *Chairman*.

To the Members of the Connecticut State Medical Society:

Your Committee appointed to investigate the advisability of adopting medical defense for its members as an integral part of this Society beg to report as follows :

The Committee has fully and carefully investigated the experience of the twenty-six or more states that have had medical defense for periods of five to fifteen years with universal satisfaction, none having repealed their action, and from the information obtained are unanimously of the opinion that it is highly advisable that this Society should provide for the defense of its members against criminal suits for malpractice.

First, because it tends to unify the profession and affords almost absolute protection against such claims.

Second, because of the great benefit at a low cost.

Third, because it will greatly strengthen the membership.

Massachusetts provided defense for 3600 members for the first ten years at an average cost of fourteen cents per capita.

Other states have had a similar experience. A few have found it more expensive. In a large majority of the states a tax of one dollar per capita has been found to be sufficient to meet all costs.

With our small membership it may require an additional grant from the treasury for the first year or two if there should be several suits defended. Our strongest factor of defense will be that we are united for protection.

Therefore we herewith offer a proposed amendment to the By-Laws.

CHAPTER 8, Section 1.—Add after the words “A committee on honorary members and degrees” the following: “A Committee on Medical Defense.”

CHAPTER 8, Section 7.—The Committee on Medical Defense shall consist of three members, to be chosen by the House of Delegates at its annual meeting in 1921; one to be elected for one year, one to be elected for two years, and one to be elected for three years; and thereafter one member shall annually be elected for a term of three years. The Secretary of the Society shall be ex-officio a member of this committee and shall act as secretary of the committee on medical defense.

It shall be the duty of the members of the committee on medical defense to investigate all claims for malpractice made against members; to take full charge of all cases which after investigation they have decided to be proper cases for defense, and prosecute such cases to the end, pay all costs of such defense, but they shall not pay nor obligate the Connecticut Medical Society to pay any judgment rendered against any member upon the final determination of any such case. They shall be empowered to contract with such agents or attorneys as they deem necessary.

First. Members shall not be entitled to malpractice defense if the acts in the suit for which they make application for defense were committed prior to their admission to membership in this Society, or before enactment of this by-law.

Second. A member in arrears with annual dues shall not be entitled to medical defense by the committee.

Third. Members who have been dropped for non-payment of dues, if reinstated, shall not be entitled to malpractice defense for acts committed during the time they were not members of this Society.

Fourth. Active members of the Society desiring to avail themselves of the privileges of this act, shall make application therefor in writing to the Secretary of the Society with satisfactory proof of their membership in good standing. They shall also furnish the Secretary a complete and accurate statement of their connection with, and treatment of, the case upon which the charge of malpractice is based, giving dates of attendance, names and

residence of nurses and other persons cognizant of facts and circumstances necessary to a clear and definite understanding of all matters in question and shall furnish such other relevant information and execute such papers as may be required of them by the Secretary or the attorney of the Society.

Fifth. A member shall agree not to compromise any claim against him, nor to make settlement in any manner without the advice or consent of the Society given through its attorney.

Sixth. In the event that a member sued or threatened with suit shall without the advice or consent of the attorney of the Society, determine to settle or compromise any claim against him, he shall reimburse the Society for the expenses incurred in undertaking his defense and in default therefor, he shall be deprived of further privileges under this by-law.

ALSO AMEND CHAPTER X, by adding in the third line after the words "House of Delegates" the following:—One dollar per capita shall be set aside and held by the Treasurer of the Society as a medical defense fund which may be drawn upon by vouchers from the Secretary of the Society, after being approved by the Chairman of the Committee on Medical Defense.

WILLIAM H. DONALDSON, *Chairman,*

FRANK H. BARNES,

ALFRED G. NADLER,

Committee.

Discussion regarding the use of the word "prosecute" (4th line, 2d paragraph, proposed section 7). Suggested to substitute the word "defend."

Discussion regarding proposed amendment to Chapter X; opposition to further increase in the levied assessment was voiced; infrequency of malpractice suits in the State was emphasized; moral effect of the proposed activity of the Society in this respect was considered detrimental to the entering of malpractice suits against members; provisions of present By-Laws were considered sufficient to defray any expenditures necessitated at present; advantages of a duly authorized attorney for the Society, as provided in this amendment, were emphasized.

Voted, to accept the report; that the Secretary re-draft the proposed amendment to embody the suggestions offered, and that the re-drafted amendment be laid on the table for one day.

REPORT OF THE COMMITTEE ON HOSPITALS.

DR. PHILIP W. BILL, Bridgeport, *Chairman*.

Mr. President and Gentlemen of the House of Delegates:

There have been no requests for information or help received by the Committee on Hospitals during the year and no meetings have been held.

Respectfully submitted,

PHILIP W. BILL,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON THE HISTORY OF THE MEDICAL PROFESSION OF CON- NECTICUT IN THE WORLD WAR.

DR. FRANK H. WHEELER, New Haven, *Chairman*.

Dr. Wheeler not present; report postponed until the next session.

REPORT OF THE COMMITTEE ON HEALTH INSURANCE.

DR. CHARLES J. FOOTE, New Haven, *Chairman*.

Mr. President and Gentlemen of the House of Delegates:

Your special committee on Health Insurance has held no meeting the past year.

Inasmuch as the members of the committee have to come from considerable distances to attend the meeting, it was planned to hold only one meeting of the committee, and that to be called

after the expected bill on health insurance had been presented to the legislature. No such bill was presented, therefore there seemed to be no reason for calling a meeting.

The suggestions in the report of the committee for 1920 have been largely carried out and most of the county associations and city societies have had committees who have made reports on health insurance. We believe that most of the profession have given considerable thought to health insurance and are better prepared to express an opinion on it than they were two or three years ago.

It is probable that two years from this time a bill on health insurance will be introduced into the State Legislature, when there should be a committee of the Society to consider such a bill and take action regarding it. For the next year there will be little for such a committee to do.

We therefore recommend that the present committee be discharged and that a new committee be appointed at the 1922 meeting of the Society.

Respectfully submitted,

C. J. FOOTE,

Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON REQUIREMENTS FOR THE PRACTICE OF MEDICINE.

DR. D. CHESTER BROWN, Danbury, *Chairman.*

In Dr. Brown's absence and at his request, Dr. Blumer reported as follows:

"What was done has been well covered in the Council's report. The Committee held a number of meetings, and at the request of the Civil Code Commission, formulated its views in the form of Bill No. 860. The Committee started with the idea that it would present suggestions to the Civil Code Commission, but at the request of that Commission, the Committee made the suggestions

in the form of a bill; that was done with the idea that the bill was not to be presented unaltered to the Legislature, for the Committee had no power to confer with other bodies, such as the dentists and osteopaths, and it was thought the bill would be modified by the Civil Code Commission, and be put in a different form. As Dr. Carmalt has already stated, it was put in unchanged by the Civil Code Commission, and the bill after being amended was defeated. The only suggestion that Dr. Brown transmitted was that he has not given up hope that something will be done in the future, and he hopes that the Committee will be continued or another committee for the same purpose appointed."

Voted, to accept the report and place it on file.

Voted, to approve the request for the continuance of the Committee.

REPORT OF THE COMMITTEE ON PUBLICATION.

DR. JOHN E. LANE, New Haven, *Chairman*.

Mr. President and Gentlemen of the House of Delegates:

Your Committee on Publication this year reports some progress, much trouble and more expense. Labor troubles in the printing world delayed the publication of the Proceedings to some extent last year in spite of the efforts of the publishers. The delay was not due to the Editor, Doctor Rogers, nor to the dilatoriness of the members of the Society. With very few exceptions members who have had material for publication have had it in the hands of the Secretary on time. Those who have constituted the exceptions have discovered that the notice of the Editor, that material not received on time will not be published till the following year, means literally what it says.

The cost of printing the Proceedings has about doubled since the beginning of the War, and this expense is the chief, if not the only cause for the necessity of increasing the dues. That this has not been necessary earlier is a reason for offering a vote of thanks to the Treasurer, and to many members of committees

who have served without rendering expense accounts, in spite of considerable travel.

New labor troubles at the printing house will probably delay this year's Proceedings, and this unsettled condition again prevented your Committee from being able to secure an estimate of this year's cost of publication.

The publication of the Proceedings is a great expense, and a few members of the Society have suggested to the Committee that it might be well to abandon it, and perhaps substitute an irregular and small Bulletin, such a one for instance as is issued by the Medical and Chirurgical Faculty of Maryland. The Committee presents this suggestion with no recommendation.

Respectfully submitted,

J. E. LANE,
Chairman.

Voted, to accept the report and place it on file.

REPORT OF THE COMMITTEE ON PERMANENT FUNDS.

REPORT OF THE AUDITORS.

(These reports are embodied in the Report of the Treasurer.)

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

DR. JOHN E. LANE AND DR. WALTER R. STEINER, *Delegates*

[A brief oral report was made by Dr. Steiner. Formal report of the 1920 Meeting of the American Medical Association was included in the published Proceedings for 1920.]

Since the Annual Session of the Society, the following report of the 1921 Meeting of the American Medical Association has been received from the Delegates from the Society.

Mr. President and Gentlemen of the House of Delegates:

The seventy-second annual session of the American Medical Association was held in Boston, June 6 to 10, 1921.

It was a well attended meeting, the registration being over five thousand. About one hundred and fifty physicians registered from Connecticut.

The work of the Local Committee of Arrangements, of which Doctor Fred B. Lund, of Boston, was chairman, is to be highly commended. The large number of physicians were well cared for. Information bureaus were placed in easily accessible places all over the city, and the indefatigable Chairman seemed to be omnipresent with his cordial greetings. One of the features of the work of this Committee was a Guide to Boston for Physicians, published by a subcommittee and edited by Dr. Walter L. Burrage, the Secretary of the Massachusetts Medical Society. This was a book of one hundred and seventy-five pages, well illustrated and containing many notes and illustrations of medical interest not found in the usual guide book. The Committee deserves great commendation for its publication, as its preparation must have demanded much care and time.

The following officers were elected: President-elect, Dr. George E. de Schweinitz of Philadelphia; Vice-President, Dr. Frank B. Wynn of Indianapolis; Secretary, Dr. Alexander R. Craig of Chicago; Treasurer, Dr. William A. Pusey, of Chicago; Speaker of the House of Delegates, Dr. Dwight H. Murray of Syracuse; Vice-Speaker, Dr. F. C. Warnshuis of Grand Rapids.

Drs. Frank Billings, Wendell C. Phillips and Thomas McDavitt were re-elected as members of the Board of Trustees.

Dr. Walter R. Steiner was appointed a member of the Reference Committee on Hygiene and Public Health, and Dr. John E. Lane was re-elected a member of the Council on Scientific Assembly for a term of five years.

It is impossible to give any outline of the important work and reports of the Board of Trustees and of the Councils and Committees. Many important questions were carefully considered in these reports and recommendations made. These reports will have appeared in the Journal of the American Medical Association before this report is published, and the reader is referred to that Journal, and urged to read the reports carefully as they represent the opinions of the different Committees on many of the questions

which are at present of the greatest importance to the medical profession in this country.

Respectfully submitted,

J. E. LANE,

WALTER R. STEINER,

Delegates.

(Note. This report was not read at the Annual Meeting of the Connecticut State Medical Society, but it was thought best to include it in this issue as it was received in time for publication. *Editor.*)

REPORT OF THE DELEGATES TO THE STATE SOCIETIES.

To Maine: DR. PHINEAS H. INGALLS, Hartford.

Dr. Ingalls was unable to attend the meeting; not properly notified.

To Massachusetts: DR. SELDOM B. OVERLOCK, Promfret.

Mr. President and Gentlemen of the House of Delegates:

Your delegate attended the one hundred and thirty-ninth annual meeting of the Massachusetts Medical Society held at Boston in June of last year. He was cordially received by the officers of the society and heartily welcomed by many personal friends in the profession who were present at the meeting.

In so large a society the meeting is divided into sections rendering it impossible for a delegate to hear all the papers presented and discussed at the meeting. These sections were that of surgery, medicine, pediatrics, tuberculosis, hospital administration and preventive medicine, each section having a separate chairman and secretary. Beside the sections and business meetings, on the evening of the first day the Shattuck Lecture is delivered, and at noon of the second day the Annual Discourse. These are given by some man eminent in the profession. Last year the Shattuck Lecture was by Assistant-Surgeon General Dr. Allan J. McLaughlin of the Public Health Service and the Annual Discourse by Dr. Hugh Cabot, Professor of Surgery, University of Michigan.

The papers read in the surgical section were, without exception, of first order of merit. Nearly all of these papers were by leaders in the surgical ranks of the state. These papers provoked full, free, and in some instances, it might be said, almost acrimonious discussion. The papers in other sections, in so far as your delegate feels capable of giving judgment, were equally good. The Shattuck Lecture by Dr. McLaughlin was devoted to a consideration of influenza. It dealt principally with the historical aspect of the various epidemics of this disease that have swept over the world from time immemorial. The paper of Dr. Rogers, read before this Society in 1919, and the work of our State Department of Health, in relation to the last great epidemic, were referred to in a most complimentary manner. Dr. Cabot's subject for the Annual Discourse, "Health Insurance, State Medicine, or What?" furnished a foundation for a most interesting discourse. Under present conditions no medical man could be otherwise than interested in the presentation of this subject. He suggested that the state should furnish resident medical men in rural communities, each man to serve for a term of years; that the various hospitals through their staffs should act as consultants and vouchers for the men so appointed; that the hospitals take the more difficult cases off the hands of these men and care for them under the direct supervision of the more experienced men who constituted the hospital staffs. In regard to the various plans that are constantly being proposed in relation to health insurance and allied matters, he said that medical men were notoriously poor proponents in presenting any kind of a bill before a legislative body, hence he advised that the medical profession should not oppose any of these measures but rather attempt to bring forward in any given instance a better measure than the one already proposed by the other party interested.

This report would not be complete unless some mention were made of the section on preventive medicine. To-day, no matter in what branch of medicine a man may be active, he does not come up to standard in the profession unless he is interested in preventive medicine. It is a duty that he owes both to the profession and to the state. The papers dealt with colleges, schools, industry and venereal disease. One speaker sounded the keynote of the

meeting by saying that the subject should be approached through reason and common sense and not through the emotions. There was nothing of the vaporizings of the professional philanthropist or exaggerations of the uplifter allowed to inject itself into the discussion. Although your delegate has no special knowledge of, or experience in, preventive medicine, he became wholly interested in the discussion in this section.

Respectfully submitted,

S. B. OVERLOCK,

Chairman.

Voted, to accept the report and place it on file.

To New Hampshire: DR. JEREMIAH F. CALEF, Middletown.

Dr. Calef was unable to attend the meeting; not properly notified.

To New Jersey: DR. WITTER K. TINGLEY, Norwich.

Dr. Tingley was unable to attend the meeting; not properly notified.

To Pennsylvania: DR. WILLIAM H. DONALDSON, Fairfield, and
DR. GEORGE H. NOXON, Darien.

DR. DONALDSON.

Mr. President and Gentlemen of the House of Delegates:

As the recipient of the honor of being your representative to the State Medical Society of Pennsylvania I take pleasure in reporting that it was my great privilege to attend the full session.

Nothing more descriptive could be said than that it was like attending a meeting of the American Medical Association, only slightly fewer in numbers. The general sessions in the morning, and the sections later, were well attended and the papers were meaty and practical.

The meeting was held in Pittsburgh, but there were so many from Philadelphia and the eastern section one could well imagine the meeting was being held in that city. The greeting given your delegate was most cordial. While no opportunity to present

your greeting in words was given it was apparently understood just the same.

In announcing our presence it was stated ours was the only society officially represented.

The Pennsylvania Society has a membership of over ten thousand, a large percentage of which was in attendance. The trade exhibit detracted largely from the attendance in the sections, as usual. More than ten years trial of medical defense has given universal satisfaction.

The ladies were given most delightful entertainments, including a theatre party, auto rides and lunches, concluding with a tour of one of the large steel works personally conducted by the officials of the company.

The honor and privilege of acting as your delegate is deeply appreciated.

Respectfully submitted,

W. H. DONALDSON.

Voted, to accept the report and place it on file.

Dr. Noxon was unable to attend the meeting.

To Vermont: DR. SAMUEL M. GARLICK, Bridgeport and DR. ALBERT C. FREEMAN, Norwich.

Dr. Garlick reported improper notification and non-attendance.

Dr. Freeman reported inability to attend due to the meeting of the New London County Medical Association on the same date.

REPORT OF THE COMMITTEE ON ARRANGEMENTS.

DR. WALTER G. MURPHY, Hartford, *Chairman*.

Dr. Murphy, at the close of the session, announced the provisions for the entertainment of the members as planned by the Committee, and as printed on the program.

The Secretary read communications from the Ohio and Wisconsin State Medical Societies, embodying resolutions in favor of permitting physicians licensed in one state to practice in any state.

Voted, to table the communications.

The Secretary read a letter from the National Anæsthesia Research Society, containing a resolution to provide a Section on Anæsthesia in the American Medical Association.

Voted, to refer the resolution to the Society's Delegates to the American Medical Association, with power to act.

The Secretary read a letter from the Clinical and Surgical Association of Massachusetts, stating the purpose, aims, etc., and inviting membership. Stated from the floor that the Association was composed largely of men refused membership in the American College of Surgeons. No action taken.

The Secretary read a communication in opposition to House Bill (U. S.) No. 565 and Senate Bill (U. S.) No. 277, *in re* mechano-therapy. No action taken.

The Secretary read the amendments proposed at the Annual Meeting of 1920, to prepare the members for consideration of and action upon the same at the following session of the House of Delegates. There was some discussion regarding the eligibility of summer residents (licensed practitioners in Connecticut as well as their legal-residence states) to become members of the local county and state societies.

Dr. Claudius V. Calvin, Bridgeport, stated that the Committee of the Fairfield County Medical Association appointed to investigate the question of the privilege of the injured employee choosing his own physician under the Compensation Act, desired the subject presented to the State Society, for approval of that privilege or for such action as was deemed proper. Stated (Dr. Eli B. Ives, Bridgeport) that the Delegates from Fairfield County had been instructed to endorse granting such privilege to the injured.

Voted, to refer the subject to the Society's Committee on Public Policy and Legislation.

The meeting adjourned until Thursday, May 19, 1921, at 8:30 A. M., Standard Time.

SECOND SESSION.

The second meeting of the House of Delegates was held at the Hunt Memorial Building, Hartford, on Thursday, May 19, 1921, at 9.00 A. M., Standard Time. The following Officers and Dele-

gates were present during the meeting: President, George Blumer; Vice-President, William H. Donaldson; Treasurer, Phineas H. Ingalls; Secretary, Charles W. Comfort, Jr.; Councilors: Fairfield County, Frank W. Stevens; Hartford County, Walter R. Steiner; Litchfield County, Elias Pratt; Middlesex County, C. Floyd Haviland (by Roy L. Leak); New Haven County, William H. Carmalt; Windham County, Seldom B. Overlock; Absent: New London County; Tolland County. Delegates: Fairfield County—D. C. Brown, C. V. Calvin, S. M. Garlick, J. D. Gold, E. P. Ives (by W. H. Donaldson). Absent: P. W. Bill, F. C. Hyde; Hartford County—C. D. Alton, C. B. Brainard, C. C. Burlingame, T. H. Denne, E. H. Truex, R. M. Yergason. Absent: T. C. Hodgson; Litchfield County—No delegate present. Absent: C. H. Carlin; Middlesex County—J. F. Calef. Absent: J. Murphy; New Haven County—C. J. Bartlett, E. T. Bradstreet, E. W. Goodenough, F. G. Graves, J. E. McGaughey, S. D. Otis, N. A. Pomeroy. Absent: W. E. Harts-horn, T. N. Loomis (notified unable to attend), C. E. Sanford; New London County—A. C. Freeman. Absent: W. H. Gray, H. H. Heyer; Tolland County—No delegate present. Absent: W. B. Bean; Windham County—A. D. Marsh, R. C. Paine.

(Roll-call was held at 10.30 A. M., Standard Time.)

The following nominations for Officers, Standing Committees and Delegates for the ensuing year were presented by the Council: For President, Charles Cartlidge Godfrey, Bridgeport; Vice-Presidents, Leone Franklin LaPierre, Norwich, Frederick Barton Bradeen, Essex; Secretary, Charles Williams Comfort, Jr., New Haven; Treasurer, Phineas Henry Ingalls, Hartford; The Committee on Scientific Work, James Douglass Gold, Bridgeport, Chairman, Wilder Tileston, New Haven, the Secretary; Member of the Committee on Medical Examination and Medical Education, John Carter Rowley, Hartford; The Committee on Public Policy and Legislation, Edward King Root, Hartford, Chairman, Charles Childs Gildersleeve, Norwich, William Henry Donaldson, Fairfield, Ralph Schuyler Goodwin, Thomaston, Charles Jenkins Foote, New Haven, Clarence Eugene Simonds, Willimantic, James Murphy, Middletown, Thomas Francis O'Loughlin, Rock-

ville, The President, The Secretary; The Committee on Honorary Members and Degrees, Charles Joseph Bartlett, New Haven, Chairman, Charles Burr Graves, New London, George Blumer, New Haven; Delegate to the American Medical Association, July 1, 1921 to June 30, 1923, John Edward Lane, New Haven; Alternate Delegate to the American Medical Association, July 1, 1921 to June 30, 1923, Charles Joseph Bartlett, New Haven. Delegates to State Associations: Maine, George Thompson, Taftville; Massachusetts, Clarence Floyd Haviland, Middletown; New Hampshire, Samuel Middleton Garlick, Bridgeport; New Jersey, William Henry Donaldson, Fairfield; Pennsylvania, Robert Lee Rowley, Hartford; Rhode Island, Witter Kinney Tingley, Norwich; Vermont, Seldom Burton Overlock, Pomfret. Other nominations were called for; none were offered.

Voted, that the Secretary cast one ballot for the election of the Officers, Standing Committees and Delegates as read. Officers, Standing Committees and Delegates as read unanimously elected.

Voted, to table temporarily the recommendation of the Council that the dues for the coming year be four dollars (\$4.00). Deferment necessitated until action had been taken on the proposed amendment concerning Medical Defense.

Voted, to accept the recommendation of the Council that the next semi-annual meeting of the Society be held in conjunction with the Litchfield County Association, on Tuesday, October 4, 1921, at a place to be designated by the Litchfield County Association.

Voted, to accept the recommendation of the Council that the next annual meeting of the Society be held in Bridgeport, on Wednesday and Thursday, May 17 and 18, 1922.

Voted, to accept the amendment to the By-Laws submitted by the Council, and published with the notice of the meeting, relative to the composition of the Council, as follows: Chapter VII, Section 1, paragraph 1, sentence 1, amended to read: "The Council shall consist of one Councilor from each county and the President, Secretary and *Treasurer* ex officio."

Voted, to table for one year, in order to secure an opinion from the Attorney General of Connecticut concerning the possi-

bility of violation of Section 3 of the Charter, the proposed amendment to the By-Laws submitted at the Annual Meeting of 1920 by the Committee on the Recommendations contained in the Reports of the Delegates to the American Medical Association, the War Committee and the Committee on National Legislation, namely: "To amend Chapter III, Section 1 of the By-Laws by adding the words 'and the Secretary of each County Society,' so that the Section shall read: 'Section 1. The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by component county associations; (2) the Councilors; and (3), ex officio, the President and Secretary of the Society, *and the Secretary of each County Society.*'"

Voted, to accept the amendment to the By-Laws submitted at the Annual Meeting of 1920 by the Committee on the Recommendations contained in the Reports of the Delegates to the American Medical Association, the War Committee and the Committee on National Legislation, namely: "To amend Chapter VIII, Section 3, by adding the words in the third line, 'and the Committee on National Legislation,' so that the section shall read: 'The Committee on Public Policy and Legislation shall consist of one member from each component association, and the President and the Secretary *and the Committee on National Legislation.*'"

The amendment to the By-Laws proposed by Dr. Steiner at the Annual Meeting of 1920 was next considered. This amendment was the striking out of the words "legally registered" from Chapter XII, Section 2, the purpose of which change was to permit membership in the County Associations for professors in the Yale School of Medicine, superintendents of hospitals, physicians holding offices in life insurance companies and similar positions, who are not registered physicians in the State. In view of the more liberal policy of the Committee on Medical Examination and Medical Education (The Board of Medical Examiners) in licensing such men without examination if properly qualified, Dr. Steiner held the change was not needed and withdrew his proposed amendment.

The proposed amendment for Medical Defense was next considered. The form of the amendment as proposed by the Committee on Medical Defense in their report (see page 38) and printed with the notice of the meeting, was changed by the Chairman of the Committee to secure uniformity in wording with the other sections of the Chapter. The proposed amendment in final form was as follows: "Chapter VIII, Section 1. Amended to read: 'The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Medical Examination and Medical Education.

A Committee on Honorary Members and Degrees.

A Committee on Medical Defense.

A Committee on Arrangements, and such other committees as may be necessary. Such committees shall be elected by the House of Delegates unless otherwise provided.'

Section 7. (A new section) The Committee on Medical Defense shall consist of three members to be chosen by the House of Delegates at the annual meeting in 1921, one to be elected for one year, one to be elected for two years, and one to be elected for three years; and thereafter one member shall annually be elected for a term of three years. The Secretary of the Society shall be ex officio a member of this committee and shall act as secretary of the Committee on Medical Defense.

It shall be the duty of the members of the Committee on Medical Defense to investigate all claims for malpractice made against members; to take full charge of all cases which after investigation they have decided to be proper cases for defense, and defend such cases to the end, pay all costs of such defense, but they shall not pay nor obligate the Connecticut Medical Society to pay any judgment rendered against any member upon the final determination of any such case. They shall be empowered to contract with such agents or attorneys as they deem necessary.

First. Members shall not be entitled to malpractice defense if

the acts in the suit for which they make application for defense were committed prior to their admission to membership in this Society, or before enactment of this by-law.

Second. A member in arrears with annual dues shall not be entitled to medical defense by the committee.

Third. Members who have been dropped for non-payment of dues, if reinstated, shall not be entitled to malpractice defense for acts committed during the time they were not members of this Society.

Fourth. Active members of the Society desiring to avail themselves of the privileges of this act, shall make application therefor in writing to the Secretary of the Society with satisfactory proof of their membership in good standing. They shall also furnish the Secretary a complete and accurate statement of their connection with, and treatment of, the case upon which the charge of malpractice is based, giving dates of attendance, names and residence of nurses and other persons cognizant of facts and circumstances necessary to a clear and definite understanding of all matters in question and shall furnish such other relevant information and execute such papers as may be required of them by the Secretary or the attorney of the Society.

Fifth. A member shall agree not to compromise any claim against him, nor to make settlement in any manner without the advice or consent of the Society given through its attorney.

Sixth. In the event that a member sued or threatened with suit shall, without the advice or consent of the attorney of the Society, determine to settle or compromise any claim against him, he shall reimburse the Society for the expenses incurred in undertaking his defense, and in default thereof, he shall be deprived of further privileges under this by-law.

ALSO AMEND CHAPTER X, by adding in the third line after the words "House of Delegates" the following:—One dollar per capita shall be set aside and held by the Treasurer of the Society as a medical defense fund which may be drawn upon by vouchers from the Secretary of the Society, after being approved by the Chairman of the Committee on Medical Defense."

Much discussion occurred following the motion for the adoption

of the amendment. Dr. Donaldson outlined the history of the work, that the previous committee during some seven years of its existence had compiled a vast amount of material from every state where such medical defense had been adopted, and that the present committee had put into presentable form the best features of these other provisions. Dr. Platt urged further consideration under the sense of Chapter XIV of the By-Laws, that the year's interval of delay was for the individual members of the Society to acquaint themselves with the impending changes; that he and members of the Litchfield County Association knew nothing about the subject and desired enlightenment. The original motion was lost in the following acrimonious and general discussion.

Motion to table the amendment for one year was lost.

Motion for a referendum, in accordance with Chapter XI of the By-Laws, was lost.

Voted, to consider and adopt the sections seriatim.

Voted, to accept the phraseology of proposed Section 7, paragraphs 1, 2 and 3, as altered by the Committee from the printed notice sent to all members.

Voted (rising vote), to accept the amendment to Chapter VIII, Section 1.

Voted (rising vote), to accept the proposed Section 7.

Voted (rising vote), to accept the amendment to Chapter VIII, as a whole.

The proposed change in Chapter X, paragraph 1, was discussed. Opposition to further increase in the dues was expressed; the Treasurer showed conclusively that funds could be provided for and that the expenses incurred could be properly met under existing provisions of the By-Laws. Dr. Ingalls presented, to replace the amendment to Chapter X as proposed by the Committee, the following: To add to Chapter VIII, Section 7, the following:

"Seventh. The expenses incurred by the Committee shall be paid by the Society upon presentation of vouchers properly approved by the Secretary and the Committee on Medical Defense."

This change was acceptable to the Committee on Medical Defense, by Dr. Donaldson.

Voted, to accept the amendment to Chapter VIII, Section 7, as proposed by Dr. Ingalls.

Voted, to accept as a whole and as amended the proposed amendment for Medical Defense.

REPORT OF THE COMMITTEE ON NATIONAL LEGISLATION

DR. D. CHESTER BROWN, Danbury.

No report.

REPORT OF THE COMMITTEE ON THE HISTORY OF THE MEDICAL PROFESSION OF CONNECTICUT IN THE WORLD WAR.

DR. FRANK H. WHEELER, New Haven, *Chairman*.

Mr. President and Gentlemen of the House of Delegates:

Your Committee appointed to gather the data concerning the activities of the medical men of this State during the World War would report that we have secured practically complete information from 494 men and that there remain 101 men on our list yet to be heard from.

Your Committee is of the opinion that, if given more time, the most of this information can be secured.

We would therefore beg leave to report progress and request that the time be extended for making our final report.

F. H. WHEELER,
Chairman.

Dr. Wheeler presented some additional statistics derived from the reports received to illustrate the work the committee had already accomplished.

Voted, to accept the report and to continue the committee.

Voted, to table the suggestion without recommendation of the Committee on Publication with reference to discontinuing the annual publication of the Proceedings on account of the increased cost, and substituting therefor sporadic publications as necessary.

Voted, to take from the table the motion relative to dues for the coming year.

Voted, to accept the recommendation of the Council that the dues for the coming year be four dollars (\$4.00) per capita.

Voted, to elect as honorary member of this Society the nominee of the Committee on Honorary Members and Degrees at the annual session of 1920: Dr. Edward R. Baldwin, of Saranac Lake, New York.

Voted, to retain an active Committee on Health Insurance, in opposition to the recommendation of the present Committee on Health Insurance, that the present committee be discharged and a new committee be appointed in 1922, prior to the next sitting of the General Assembly.

Voted, to continue the present Committee on Health Insurance.

The report of the representative of the Connecticut State Medical Society to the State Committee on Public Health Nursing was called for. Dr. Charles P. Botsford, Hartford, representative appointed by the Council, April 14, 1920, was not present; no report made.

Report of the delegate to the United States Pharmacopeal Convention, May 11, 1920, was called for. Professor H. G. Barbour, New Haven, appointed by Dr. Graves, President, one-half of whose expenses was voted paid by the Society at the Council meeting of April 14, 1920, and was subsequently paid by the Treasurer, was not present; no report made.

Voted, to request Dr. Barbour to make a report, same to be published in the Proceedings.

Voted, to accept the recommendation of the Council that the Delegate from the Society to the Inaugural of President-elect Angell of Yale University be Dr. Charles Cartlidge Godfrey, Bridgeport, newly elected President of the Society.

Voted, to accept the recommendation of the Council that the delegate from the Society to the International Eugenics Congress be Dr. William Henry Carmalt, New Haven.

Voted, to continue the present Committee on a Sanatorium for the Nervous Poor.

Voted, to accept the recommendation of the Council that the Committee on Health Problems in Education be composed as follows: Edward W. Goodenough, Waterbury, Chairman,

Charles J. Foote, New Haven, Howard W. Brayton, Hartford, Charles P. Botsford, Hartford, William L. Higgins, South Coventry.

Voted, to continue the present Committee on National Legislation.

Voted, to request the Council after due deliberation to appoint the newly provided-for Committee on Medical Defense.

Voted, to accept the recommendation of the Council: (1) to replace the two members of the Committee on Hospitals whose terms expire this year (Philip H. Bill, Bridgeport, and Walter R. Steiner, Hartford) by Daniel C. Patterson, Bridgeport, and Patrick F. McPartland, Hartford.

(2) that the Committee on Hospitals shall consist of the following: Wilder Tileston, New Haven, 1922, Chairman, Harris F. Brownlee, Danbury, 1922, Daniel Sullivan, New London, 1923, Seldom B. Overlock, Pomfret, 1923, Daniel C. Patterson, Bridgeport, 1924, Patrick F. McPartland, Hartford, 1924.

Voted, to continue the Committee on Requirements for the Practice of Medicine.

The Secretary read the Official Call for the Annual Meeting of the American Medical Association, Boston, Mass., June 6 to 10, 1921, and miscellaneous letters for the information of the House of Delegates.

Dr. Edward T. Bradstreet, Meriden, announced a meeting of organization of the Connecticut Hospital Association in Meriden, June 1, 1921. Members of the Connecticut State Medical Society, especially those connected with hospitals, were invited to attend. Dr. Bradstreet again emphasized the need of the Society for an attorney, who would study and follow medical events within and without the Society and who would be competent and willing to aid the Society in any of its legal problems. Dr. Pratt declared no attorney would trouble to prepare himself but would await summons before informing himself relative to medical matters. Further discussion by other members.

Voted, that the Council be authorized, after due deliberation, and if it seemed wise, to appoint an attorney for the Society.

Dr. Nelson A. Pomeroy, Waterbury, presented and discussed the following resolution:

RESOLVED:—That the Connecticut State Medical Association, in convention assembled in Hartford, Conn., this 19th day of May, 1921, endorses the Connecticut State Farm for Women as an institution of great economic and medical value to the state; and urges upon the General Assembly now in session the granting of appropriations for increasing the capacity of said institution, and for the maintenance of same.

And be it further resolved, that the present law under which the Connecticut State Farm for Women operates should not, in the opinion of this convention, be changed with respect to the age limits.

And be it further resolved, that a copy of this resolution be mailed to the Speaker of the House and to the President of the Senate; and also that copies be released to the public press.

Dr. C. Charles Burlingame, South Manchester, voiced his opinion that the dignity of the Society would be lowered by endorsement of appropriation measures for any institutions or projects, no matter how worthy they might be. Dr. Seldom B. Overlock, Pomfret, endorsed the age-limitation (16 to 25 years).

Voted, to table the resolution.

Voted, that the House of Delegates shall appoint a Delegate to the Connecticut State Hospital Association, and shall request the Connecticut State Hospital Association to send a Delegate to the House of Delegates of the Connecticut State Medical Society.

Voted, as Delegate to the Connecticut State Hospital Association, Wilder Tileston, New Haven, Chairman of the Committee on Hospitals; as Alternate Delegate to the Connecticut State Hospital Association, William H. Carmalt, New Haven.

Voted, to extend votes of thanks for their valued contributions to the success of the Annual Session to the following:

The Travelers Insurance Company, for permission to visit the tower.

The Hartford City Medical Society, for the use of the Hunt Memorial Building, and for the delightful smoker on Wednesday evening.

The Hartford Hospital, and St. Francis Hospital, for the clinics provided.

The Hartford Retreat, for the luncheon to the members on Thursday noon.

The meeting adjourned.

Business Transacted at the Scientific Session.

WEDNESDAY, MAY 18, 1921.

Dr. E. A. Codman, Boston, and Dr. J. L. Ames, Boston, Delegates from the Massachusetts Medical Society, tendered the greetings of their Society.

Dr. E. Pratt, Torrington, announced a meeting of the Connecticut Public Health Association in New Haven, June 2, 1921, and extended an invitation to all members.

THURSDAY, MAY 19, 1921.

Dr. Frederick B. Sweet, Springfield, Delegate from the Massachusetts Medical Society, tendered the greetings of the Society and of himself, expressing gratification at the renewal of acquaintance with school-mates, teachers, and friends.

Dr. G. H. Wright, New Milford, suggested that the President's Address in whole or abstract be given to the lay press, for the information and education of the public.

Voted, to refer the publicity of the President's Address to the Council for such action as it sees fit.

[Dr. George Walker, of Baltimore, delivered an address on "The Abolition of Venereal Disease." The corrected notes have not been received; publication omitted. EDITOR.]

The Secretary read the following resolution presented by Dr. W. H. Donaldson in behalf of several members:

"RESOLVED:—That the Connecticut State Medical Society, at its annual Convention held at Hartford on May 19, 1921, desires to express its approval of the efforts and purpose of President Harding looking to the establishment of a Department of Public Welfare, and

That a copy of this action be sent to each of our Senators and Representatives at Washington, D. C., with the request for their cooperation; also to the June Meeting of the American Medical Association, with a request for their action in a similar manner."

Dr. W. H. Carmalt expressed his approval of President Harding's plan, but took marked exception to its method of execution on the advice of his personal physician, considered incompetent to so advise.

Voted, to table the resolution.

Voted, to extend a vote of thanks to the Hartford Medical Society and to the Hartford Retreat for their contributions to the meeting's success.

Voted, to extend a vote of thanks to Dr. George Walker, Baltimore, for his coming, and for his very excellent paper.

The Clinical Sessions.

On the morning of May 19th, the following clinical program was given:

AT THE HARTFORD HOSPITAL.

Surgical Cases under Observation.—Dr. A. M. Rowley.

Disease of Heart Demonstrated with the Electro-Cardiograph.—Dr. R. S. Starr.

Observations on Diagnosis by the Röntgen Ray.—Drs. Heublein and Roberts.

Symptomatic Renal Colic.—Dr. T. N. Hepburn.

Cases under Observation and Treatment by Radium.—Dr. E. T. Smith.

Illustrative Cases on Diseases of Children.—Dr. C. A. Goodrich.

Observations from the Pathological Reports of the Hartford Hospital.—Dr. J. C. Rowley.

Medical Cases of Interest.—Drs. W. R. Steiner, L. B. Cochran, E. K. Root.

AT ST. FRANCIS HOSPITAL.

Operative Clinic.

Surgical Clinic.—Drs. Sullivan, Taft, Clifton, McPartland.

Operative Treatment of Empyema without Drainage.—Dr. Taft.

Cholecystectomy without Drainage.—Dr. Taft.

Blood Transfusion.—Dr. McPartland.

Medical Clinic.

Rheumatic Fever Treated Intravenously with Sodium Salicylate and Sodium Iodide.

The Determination of Urea, Nitrogen, Creatinine and Uric Acid as Factors in Kidney Lesions.—Drs. Crowley, Welch, Landry.

Gynecological Clinic.—Drs. Wolff, Outerson.

Eye, Ear, Nose and Throat Clinic.

Sinus Thrombosis.

Technique in Esophagoscopy, Bronchoscopy and Tonsillectomy under Local Anesthesia.—Drs. McClellan, Gallivan, Reardon.

Orthopedic Clinic.

Demonstration of Plaster Work—Splints and Modeling as Applied to Orthopedics.—Dr. Root.

Operative Clinic.

Cases of Spastic Paralysis Treated by Operation.—Dr. Pierson.

Infantile Paralysis.—Dr. O'Brien.

Demonstration of Suspension Apparatus for the Treatment of Severe Fractures.—Dr. Yergason.

Cystoscopic Clinic.

Demonstration of Cyso-Technique.—Cystoscopic Demonstration of Cases.—Dr. Boyle.

X-Ray Department.

Technique of Application of Radium in Malignancy.—Dr. VanStrander.

Pediatric Clinic.

Case of Spleno-Myelogenous Leukamia.—Dr. Locke.

Neurological Clinic.

Case of Injury of Spinal Cord.—Dr. Miller.

Exhibit in the Record and "Follow-up" System Department.

Laboratory Department.

Pathological Demonstrations.—Dr. Russ.

Social Events.

The Hartford Medical Society entertained the members of the State Society on Wednesday evening. Mr. Winchell Smith aided the Committee in securing entertainers from New York. The enjoyable program furnished by them, with the elaborate supper provided, made the smoker a memorable occasion.

Luncheon was served to members of the Society at the Hartford Retreat on Thursday noon, following the Clinical Sessions. Dr. W. N. Thompson, Superintendent, was the host on this occasion, and opportunity was given the members to visit the institution.

The Travelers Insurance Company granted to our members the privilege of visiting the tower of its building. Many took advantage of this opportunity.

Following the second Scientific Session, the annual banquet was held at the Hartford Club, with an exceptionally large attendance. The speakers were: Dr. George Blumer, the retiring President; the Honorable Everett J. Lake, Governor of Connecticut; Mr. Winchell Smith; Dr. Charles C. Godfrey, the newly elected President; Bishop Murray of Hartford. Dr. Walter G. Murphy, Chairman of the Committee on Arrangements, presided.

THE PRESIDENT'S ADDRESS.

THE PRESIDENT'S ADDRESS.

GEORGE BLUMER, M.D., New Haven.

Taking Stock.

In the opening remarks of his Gulstonian lectures, delivered in London in 1885, William Osler makes the following observation: "It is of use from time to time to take stock, so to speak, of our knowledge of a particular disease, to see exactly where we stand in regard to it, to inquire to what conclusions the accumulated facts seem to point, and to ascertain in what direction we may look for fruitful investigation in the future." While this statement refers to the investigation of disease it is equally applicable to the study of medical tendencies and medical progress. It is of great importance that we should, from time to time, make *conscious* efforts to "size up" the medical situation, to comprehend the changes which are occurring within the profession itself and also those which affect its relations to the public whom it serves. In suggesting that we make *conscious* efforts to do this I use the word *conscious* advisedly for we all subconsciously keep track of the march of events in our profession. Subconscious surveys, however, have the disadvantage of being incomplete and onesided, and are apt to result, when action is necessary, in the traditional Anglo-Saxon method of muddling through rather than to lead to well thought out and orderly programmes.

It is my purpose in this address to attempt a bird's-eye view, or perhaps in these days I should say an aeroplanic survey, of the chief changes which have occurred in medicine in the last few decades, having in mind particularly changes in method and organization within the profession and alterations in our relationships to the public. I shall not attempt to bore you with minute details or persuade you with columns of impressive figures; both the nature of this address and the time limitations forbid such a course.

Medical Education.

During the professional lifetime of many here present certain striking changes have occurred in undergraduate medical education, changes which, while they have undoubtedly resulted in raising the level of professional competency, have also had pronounced economic effects. As you well know, the number of medical schools in this country has been very considerably reduced and coincident with this reduction has come a very marked increase in the quantity of instruction and a very decided improvement in its quality. This change has been mainly due to the untiring efforts of the profession itself acting through the Council on Medical Education of the American Medical Association ably abetted by the caustic but salutary criticisms of the Carnegie Foundation transmitted through the trenchant pen and stimulating personality of Mr. Abraham Flexner. It needs no great financial acumen to realize that this process has been an expensive one, and while a considerable proportion of the added expense has been assumed by the educational institutions of which most medical schools are now an integral part, a portion has had to be borne by the medical student, and this, with the added burden of at least two years of preparatory college work, has greatly increased the cost of obtaining a medical education. The changed conditions have furthermore resulted in the production of a type of practitioner whose training has made him more dependent on the extraneous aids to diagnosis and treatment than was the case with his professional forebears, and these two factors, i.e. lengthy and costly education and dependence on laboratory aids, have resulted in an urbanization of the profession with a gradually increasing depletion of the rural districts. It may be added that the onerous work and the inadequate financial returns of country practice seem to have lost their appeal to the younger men. Possibly as the country grows older and more settled the pioneer spirit is waning.

In graduate as contrasted with undergraduate medicine the changes have been less rapid and less striking. This is naturally the case, for medical schools whose faculties feel that they are

undeveloped on the undergraduate side are loth to take up graduate instruction. Nevertheless certain tendencies regarding graduate instruction are plainly discernable. The interne year, formerly a purely voluntary institution, has now become obligatory in many schools, and this has led to an appreciation of the necessity for a certain amount of formal training of the interne staff, and has resulted in the classification of the hospitals of the country into those capable of training internes and those lacking in the proper facilities. In recent years, too, it has become quite obvious that the profession itself has become dissatisfied with the haphazard method, or rather lack of method, under which specialists have been produced, and the attempt to put this training on a sound footing will undoubtedly result in the near future in an increased number of fellowships and an increased complexity of organization in many hospitals. It is now generally realized that the existing graduate medical schools are valuable mainly as places to which the practitioner may go for review courses and are not satisfactory training grounds for specialists as most of them are at present organized and conducted. One school, the Graduate Department of the University of Pennsylvania, now demands at least a year's work of its students, and two or more years if special degrees are to be granted.

Medical Practice.

Coincident with these changes in medical education marked changes in medical practice have been developing. The laboratory era, which began in the eighties of the last century with the application of the methods of pathology and bacteriology to the clinical field, has grown apace. Serology has developed, simplified methods have enormously increased the clinical applications of chemistry, the practical study of metabolism in disease has become important, and the use of radiology and electrocardiography has become widespread. The adoption of these and other technical procedures has led to a steadily increasing complexity in medical practice. All of this has naturally led to increasing specialization and to an appreciation by the general practitioner, the surgeon, the obstetrician and the internist that

we have passed what might be called the age of the unaided senses. You will remember that in the case of that redoubtable individual described by Goldsmith "still the wonder grew that one small head could carry all he knew." It is quite obvious that at the present time one head is no longer able to contain the knowledge necessary for the unravelling of obscure clinical cases. This has resulted, as you know, in the development of "group practice" and in the establishment of so-called "diagnostic clinics" where the application of principles long used in the better general hospitals has been raised to the *n*th power.

The past two decades have been periods of great hospital expansion, not so much in the larger cities as in the smaller towns and even in the country districts. Some of these institutions have been the creations of public or professional demand, some have been the products of philanthropy, and some have been private enterprises sired by professional ambition and damned by commercialism. To the credit of the profession the last group has been a small one. I am sure I will not be misunderstood when I state that many of our hospitals, both public and private, are far from being what they should be from the standpoint of scientific medicine. A long experience as a hospital trustee has impressed me with the fact that the financial obstacles to be surmounted in building up an adequate hospital organization are very great, and I shall discuss this question from another aspect later on. I would insist at this time, however, that the managers or trustees of our hospitals must be taught that these institutions are not mere boarding houses for the sick. The advantages of the hospital to the surgeon and to the surgical patient are so striking and obvious that, particularly in our smaller institutions, the treatment of medical diseases is grossly neglected notwithstanding the fact that in diseases like diabetes, nephritis, affections of the circulation, cerebrospinal syphilis, pernicious anæmia and many others hospital treatment is by all odds more satisfactory, at certain periods, than home treatment.

A third development in medical practice which has progressed with rapidity in recent years is the increased employment of physicians on full time as health officers, diagnosticians, and

laboratory workers by states and municipalities. This has been increasing rapidly in recent years and is, in my opinion, just beginning. The employment by manufacturing concerns of physicians who devote their whole time to caring for employees is also increasing, as is the employment of school physicians, and physicians in special state institutions such as Tuberculosis Sanatoria. I mention these facts not because I wish to discuss them at length but because of their bearing on the scarcity of doctors in the country districts.

Relations to the Public.

There is no question that medicine has been popularized to an increasing degree in the past few decades. Many newspapers conduct departments in which answers to medical queries are supplied or medical subjects are discussed. Medical topics are freely handled in the Sunday supplements and in the popular magazines, and special societies like the Antituberculosis Associations, the Society for the Prevention of Cancer, and numerous others supply the public with literature. As a consequence the man on the street has a much more widespread knowledge of medicine and takes a much more intelligent interest in medical affairs than ever before. The fact that some of the information imparted is garbled and that the knowledge is, of necessity, somewhat meagre does not alter this fact. This increase in medical knowledge among the public undoubtedly leads them to expect more of the medical profession. Just how much it has had to do with the demand for so-called health insurance is, I think, a matter for speculation. While we may doubt that the demand for some form of socialization arose spontaneously among the mass of the public, we must face the fact that such a demand exists and will have to be met in some way.

SUMMARY.

As a preliminary to the discussion of a program for meeting certain of the changes above noted we may summarize them as follows: as a result of the increased cost of medical education and the increased complexity of medical practice the medical

profession, like the general population, is tending to become urbanized and in many country districts the supply of medical men is becoming inadequate. This scarcity of rural practitioners is accentuated by the increasing number of opportunities for full time work with states, cities and industrial organizations. At the same time the public is becoming better informed on medical affairs, is demanding more scientific treatment, and showing a decided tendency to back legislation which would lead to the conversion of medicine into a career of public service in the political sense, would introduce the profession to the dangers of bureaucracy and would tend to stifle professional initiative.

Possible Remedies.

It is useless to point out defects without proposing remedies, and it seems to me that what we must seek is some plan which will meet the public demand for improved medical care and will, at the same time, be beneficial to the profession itself.

So far as the public is concerned, I think our motto should be "Don't give the public what they think they want—educate them as to their real needs." From the viewpoint of medical service, as I see it, the great need of the public is better opportunity for the average citizen to obtain scientific medical diagnosis and treatment at a cost within his means. It is probably true that the bulk of the patients seen by the general practitioner are suffering from uncomplicated diseases which yield readily to treatment or recover in the natural course of events. There are no accurate figures covering this point, and I make the statement subject to correction. I take it that the cases of obscure and complicated disease if not exceptional at least constitute a minority. For this reason it seems clear that the general practitioner will continue to do the bulk of medical practice. It is the patient with an obscure or chronic disease who requires the services of group medicine and should go to the well-organized hospital or the diagnostic clinic. There is one thing which it is quite certain that the American public does not need, and that is the type of medical care which has been developed under German and British health insurance.

So far as the profession is concerned, I believe that what they need is merely the opportunity to practice their profession according to their lights unhampered by shackles of official red tape. Beyond this they want nothing but the opportunity to develop whatever abilities they may possess, and as professional men, it is incumbent on them to educate themselves to the fullest degree.

The central idea which I wish to bring before you in this address is that by developing our hospitals and using them as medical centers we may meet the needs of both the public and the profession.

How may this be brought about, and how radically must existing conditions be changed? It has been said that all problems are at bottom financial problems and this I think is no exception. We have the advantage in Connecticut of being one of the two States in the Union with a hospital in every county. We are not a large State. We have in our midst a large university with a good medical school, a good medical library and a coöperative librarian. We have smaller colleges with biological laboratories. We have State medical institutions with paid staffs and in some cases adequately equipped laboratories. All these things will help but they will not supply all our needs. If we are to develop our hospitals as medical centers we should know first whether they really are centers. We have no accurate knowledge of the medical needs of the state. The hospitals have been developed more or less haphazard, though doubtless not without good reason for both their existence and their location. To solve the problem logically we should begin by having a medical survey of the State. We should know the relation of the hospitals to the population which they serve and the available beds per capita. We should know the situation of the remoter country districts as regards medical service. We should find out whether it is true, as the advocates of health insurance claim, that many citizens fail to call in medical aid because they cannot afford it. We should ascertain whether we need additional hospital centers or if expansion of the existing ones would meet the situation. Such a survey would be of inestimable value, and in a State the size of Connecticut should not be an excessively costly procedure. Could we

persuade the State to undertake it? Could we persuade some philanthropic organization to attempt it, or should we endeavor to put it through ourselves with help from interested citizens? Might the Chambers of Commerce, the Civic Federations, the Granges be interested in such a plan?

In the meantime what is necessary to make the existing institutions more efficient? If we are to develop our hospitals as centers they must be adequately equipped. They must all have pathological departments, they must all have satisfactory X-ray departments, they must all have working libraries, they must have satisfactory records, and they must all have staffs devoted to their interest and working together. Is this a Eutopian dream? I think not, though it may take time to reach this point.

Once we have hospital centers established and properly equipped, I believe we can do much to educate ourselves and to more adequately care for our patients. The type of graduate instruction we can develop around our hospitals is self-instruction. The number of men who are able to get away for post-graduate courses of the formal sort constitute but a small proportion of the profession. With hospital centers our education could be a continuous performance. We could continue our city and county and state medical meetings and we could add to them more informal methods of medical study among the small groups of hospital associates. The opportunity for more carefully controlled study of patients is in itself an education for a hospital staff. The development of the clinical and pathological conference, the journal club and the staff conference would all serve as educational factors of vital importance. The formation of Intra-state Hospital Clubs where the staffs of the different hospitals could meet and discuss professional problems would be of the greatest value, and in a compact State like Connecticut would be entirely feasible. The interesting conferences of the staffs of the State Tuberculosis Sanatoria are an admirable illustration of the stimulating effect such meetings may have both on the advancement of knowledge and the development of esprit de corps. One can see, too, how helpful the faculty of the Medical School could be in such a scheme. They could act as a central coördinating agency,

could contribute courses of lectures on special topics and could present from time to time new methods or discoveries.

So far as the public is concerned, an important function of the hospitals throughout the State should be the provision of opportunity for the study of obscure diseases at a reasonable cost to the patient. At the present time, as has been frequently remarked, it is only the rich and the poor who can afford such service. To the great middle classes of the population the cost of medical attention of this kind often involves a very real financial sacrifice. I am well aware that at the present time the staffs of the smaller hospitals are furnishing such service as fully as is possible with the more or less restricted means at their disposal. I can see no reason why, with more adequately equipped institutions, this work should not be organized so that the smaller institutions would perform it as competently as the larger ones. Teams of coöperating specialists can be developed about any hospital. Professional ability is not confined to large cities, and with increasing opportunity for work a specialization of the practitioners forming the staffs of the smaller hospitals would undoubtedly be brought about. The fact that it has already occurred to a considerable extent indicates that lack of opportunity rather than lack of capable practitioners has limited it so far. The development of pay clinics for both dispensary and hospital patients where, for a reasonable fee, careful studies of patients with obscure diseases could be made is, in my opinion, the best antidote against the development of governmental medicine in some form, though it is possible that it can only be brought about by financial aid from the State.

In conclusion I must point out that these ideas are many of them not my own. They are, so to speak, "in the air" and I must confess in the words of Montaigne that "I have here only made a nosegay of culled flowers, and have brought nothing of my own but the thread that ties them together."

SCIENTIFIC PAPERS.

Helping the Interne.

DANIEL C. PATTERSON, M.D., Bridgeport.

It was rather difficult to get a title that would exactly suit the ideas I had in mind. However, the one given will answer the purpose of an introduction. The subject can be divided into two heads. First, instruction to the internes as a body, and secondly, instruction to the internes on your particular service.

Under the hospital Standardization rules of the College of Surgeons, it will be incumbent upon hospitals, that desire to be highly rated or approved, to provide a course of instruction to their internes. This should have been done long ago, and as a matter of fact has in some hospitals, but I believe that except for the hospitals fortunate enough to be closely associated with a medical school very little has been attempted in this line of a systematic nature. No doubt in the near future one of the requirements for registration in a State will be an internship of at least a year in an approved hospital. Should your hospital be lacking in this respect it is obvious that it would be almost impossible to secure internes, at any rate desirable ones. Moreover it is generally acknowledged that such a course will be of great value to the internes. Those who are working daily with the internes will I believe heartily agree with this statement.

I recently had a graduate of one of our largest and best medical colleges tell me that when he graduated he had never given an anæsthetic, used a hypodermic syringe or taken a suture. His is not an exceptional case. Many graduates go directly from college into practice thus prepared to work. It is needless to speak of the value of hospital work preparatory to entering practice. At least one year's work as an interne should be obligatory before a license is given. The young graduate is not equipped with the necessary practical knowledge to begin practice.

In order that the interne may get the greatest value out of his hospital work some systematic course of training should be carried out. Otherwise he is turned loose on a mass of material and gets

out of it only what he may pick up from his own individual effort and from the particular attending to whom he is assigned. In many cases his attending is a busy practitioner and does not find the time to work up the cases with him and he is left too much to his own endeavors, and may derive but little benefit from an otherwise instructive case. The value of hospital instruction is too obvious to need any argument.

The question arises as to the best method of carrying out the instruction. Those of us who have had little or no experience in the teaching art, are reluctant to appear before a group of men as didactic lecturers, and I fear might not be able to advance the knowledge or love of medicine with men who for four years have been listening to the best instructors obtainable. Moreover the interne has his books and can derive more benefit from an hour's reading than from several hours listening.

I believe therefore that the best plan of instruction to be used in the average hospital would be bedside clinics. We have the material and should make as much use of it as possible. The men will thus come face to face with the medical or surgical problem as it is presented to the practitioner. They will not only see the cases on their own service, but every interesting or instructive case in the hospital, and where our hospitals are not too large be able to trace the case to its conclusion, and can form their own opinions as to the handling of the case.

We have adopted the above idea at the Bridgeport Hospital. Our plan calls for two clinics a week, one on Medicine or Surgery on Tuesdays and one of the specialties on Fridays. No subjects have been assigned as the clinician must be guided by the material at hand, as in this way he will be able to present the most instructive cases. Care must be exercised that there will not be too much repetition of cases. If clinical material is wanting there are many subjects that can be taken up by the instructor; especially helpful would be talks on the conduct of private practice, and the everyday problems that will confront the young practitioner. This is left to the judgment of the teacher. The attendings will rotate in giving the clinics. I believe it is a good plan to announce beforehand what the cases will be. That will give the men a

chance to read up the subject, and thus be more interested in getting points from the case.

We must appreciate that our internes in starting a service are comparatively green, and too much stress cannot be laid on the importance of starting from the ground up to study a case. That means that the history should be gone into carefully. This should be done at some of the clinics. Many valuable points in tact may be gained in this way.

Later in the course the internes will be asked to hold a clinic. As a variation—A good plan would be to present a case with all the clinical data and laboratory findings. Let the internes examine the patient, and then take them to a consulting room where the case can be thrashed out and a diagnosis made. Many suggestions and improvements can be made to these plans. The idea is to get the interne interested in the material which he has at hand, and to put him on the right road to utilizing his opportunities for study. A course of this kind in which all the branches of medicine have been demonstrated, coupled with the personal experience gained from his daily work with his attending, will fit the young doctor to take up his work with efficiency as well as increased confidence.

In some of our hospitals where nurse anæsthetists are the order, provision should be made so that the interne can become proficient in that work. There is a tendency I believe to sidestep anæsthetics, but it is a matter of considerable importance that the young doctor should not overlook. They should also have some practical training in pathological and bacteriological work, for many of them will go to communities where a central laboratory is not at hand.

The internes should be encouraged to form a medical club of their own, in which they can present papers or cases in turn, and thus get the habit of thoroughness and exactness. The study of current medical literature should also form a part of the work of such a club. As an aid every hospital should have a library where the principal journals are available to the internes.

Too much stress cannot be placed on the importance of obtaining autopsies. In this work, the internes who see so much more

of the families of the patients than the attendings can be of the greatest help if they will exercise tact in making the request. They should be instructed as to the best way of approaching the responsible ones. The internes should attend all autopsies and make notes on the findings that they may add them to the hospital records of the case. There is also at such a time an excellent opportunity for him to refresh his mind by a study of the anatomical relations and to perfect himself in operative technique. I am sure the pathologist will give his aid to such an effort.

When an interne first appears on one's service he is apt to be somewhat at sea as to just what he is expected to do. The period of breaking in can be expedited if he is given written instructions which will cover most of the questions that come up. I have formulated the following and find the internes appreciated them:

Don't be afraid to ask questions.

See patients as soon as possible after admission. If the case looks urgent notify the attending at once.

Get a thorough history of the case. Make a physical examination and the necessary laboratory examinations.

Form an opinion of the case and make a diagnosis of your own.

Don't get the habit of depending upon the laboratory findings, or waiting for the Röntgenologist to make a diagnosis. There is time for the X-ray Department to work after the clinical picture has been carefully studied.

Look upon all service cases as representing your private practice and study and treat them as such.

Chart all findings and any treatment.

Don't be afraid of making too many notes. See that a detailed description of the operation is on every chart. This should be dictated by the operator.

Make frequent notes of the patient's post-operative conditions.

Unless otherwise instructed remove sutures on the seventh day. Do not dress clean wounds before then.

Endeavor at all times to keep your hands in good condition that they may be in what we might call the surgical state.

No septic dressings should be done in the morning before an operation. That time can be used for history taking, note writing and examinations. Do not have the nurses dress your cases.

All clean cases should be dressed first, leaving the worst infections for the last.

Gloves should be worn for all dressings except minor clean ones.

Don't give all patients the same laxatives, but treat them individually.

Read up on the operations that are posted for the following day. Your assistance will be much more valuable. Do not make light of post-operative complaints but investigate them thoroughly.

In every case of death, try your hardest to get an autopsy.

With some such instructions in the interne's hands we may not be met with the reply, "I wasn't told to do that." Of course the interne isn't given a set of instructions and then left to himself.

When an attending goes over a case with the interne any additional points of the history that are brought out are called to his attention to be added to his record. The physical findings and diagnosis can then be checked up and the treatment decided upon.

When the interne goes to the operating room for the first time he should have exact guidance in every detail of his work. He should be impressed with the necessity of keeping his hands and nails in good condition. He should be shown the proper method of washing his hands, taking each finger in turn so that no part is slighted. Also of putting on his gown and gloves to avoid any possibility of contamination.

These may seem like simple matters to discuss to the experienced man, but one must remember that our new man is not experienced and attention to these details is the price of safety. The operative procedure should be explained to the assistant and the reason for using a certain method given. Instinct won't tell him the advantages of using a certain suture material for a particular object. After an operation a few minutes can be profitably spent in going over the work with the interne, and ascertaining whether or not he approves of your treatment of the case, explaining other methods that could have been used and your reasons for not using them. He must be impressed with the importance of the post-operative care of his patients and not to make light of their complaints. Until he has had experience enough to be trusted with the after care of a case, explicit instructions should be left with the interne as to what treatment the patient is to have.

I have found it advisable when making rounds with a new

interne to write notes on the case myself. He then realizes the value of this part of the work and will eagerly take it up when you refer it to him. We must endeavor to make the interne realize that while he is in the hospital he is enjoying a rare opportunity and that his time must not be wasted. Because his college days are over is no reason why his books should be left unread. There should be little time for an interne to play.

We must assume a responsibility for them as well as for the patients under our care and though we are met by many discouragements must keep hammering away. If we find an interne with adaptability for a certain line of work, we should encourage him to follow his inclination. If we find one inclined to take up a work for which he shows no adaptability, we should advise him accordingly. There is a lot of work for us to do to fulfill our obligations.

DISCUSSION.

DR. E. A. CODMAN (Boston, by invitation): It is a pleasure to hear Dr. Patterson's paper and I agree with everything he has said. I cannot discuss it from the point of view of differing. Everything he has put into the paper is sound. The question is a very timely one just now, for we are trying to make our hospitals better and see that every patient has the best possible treatment. The great problem in teaching an interne and helping him, seems to lie in giving him as much experience as you can. We all know that an interne in a hospital likes to have operations and to be given charge of sick cases, and have the attending member in charge take the responsibility, even if not present. As I look back on my own internship, I remember I thought I could do some operations as well as the surgeon, and oftentimes they were left me to do. The practice in the old days was to let the interne do the hard, disagreeable things, and for the Attending Member of the Staff to do what was plain and simple, like the removal of a large ovarian tumor. This was simple, and yet quite striking when done by the senior member of the staff. On the other hand, some really difficult operations, such as those for prolapse of the uterus, were often done by the student or interne. This was not fair to the patients.

Every one learns more by example than by precept, or reading or lecturing, and more than anything else from the example of the visiting staff. We want to bring up internes who will get out and practice, and take responsibility, and not have to ask advice every minute. A man has to take responsibility in practice, but in hospital work an interne cannot

be given opportunity without being given opportunity to help or to injure the patient. We ought to teach each interne everything that can be taught without injury to the patient. I call an appendectomy a simple thing, which the interne can be taught to do without injury to the patient. Even more difficult operations can be safely done by the interne. Every interne can be taught to make the incision into a joint or the abdomen and can be given opportunity to sew up such wounds. He has the opportunity to learn these without jeopardizing the patient and *not* to allow him to do these things does jeopardize future patients when he is in practice. In the hospital, the interne learns many things besides technique. He will copy our example, even if it is bad.

A couple of generations ago there were practically no hospitals; a generation ago, patients were sent to the hospital to die, because there was no other place for them. We now keep the patients who are going to die at their own homes,—rather the reverse of the custom of previous generations. Now patients are sent to hospitals as an efficiency procedure, to get them well. We look upon the hospital as the place where the interne is taught to do what is necessary to cure the patient, and not to attempt to until he has learned the proper method.

I feel that every interne, medical or surgical, should learn to do many simple things necessary in modern practice, such as to take the blood for the Wassermann test, how to set a Colles' fracture, how to draw the spinal fluid, etc., but he should not be given the opportunity to set the Colles' fracture, tap the vein or put a needle in the spinal canal, until he has learned how, with some one standing over him to see that it is done rightly. We must teach him to take responsibility, but not unwarranted responsibility.

I would suggest a sort of card for the interne, on which various similar procedures are listed and which he should know, and which we should know that he knows, before we let him graduate from our hospital.

DR. E. A. WELLS: Dr. Patterson's subject interests me much. It is very aptly chosen. Our responsibility in this matter has not been felt by some as much as it should be. My sense of responsibility to the interne has been growing on me in the last few years. I have frequently had occasion to say that the first duty of the hospital is to its patients, and its second is to its internes. The interne comes second in our organization; I put myself third and my assistants last. (Many of them do not like that.)

The hospital is not only a place for the sick, it is also a teaching institution, and the interne should have that teaching. We do not want so much to teach them technique as habits of thought, and of these the first is proper records. No hospital can be said to do good work that does not keep good records. The habit of putting things down in black and white makes

a man's thinking concrete. Encourage them to keep a personal record for themselves of the cases of unusual interest, just as they would in private practice. I did that during my internship in the New York Hospital and started a card record system that become the nucleus of my present clinical records. They go back for twenty years, and I can to-day turn back to my old hospital cases, for they are filed and indexed with my other records. I tell my internes that they will never regret it if they begin to keep records right away of the cases that interest them. Later on they can file them with their other records and they will be very glad to have them.

One practice common in hospital work I believe to be vicious. That is the excessive tendency to the establishment of routine treatment. This is the root of a great deal of evil. As a general rule the more routine the less brains, and the less routine the more brains will be used. Of course, certain things have to be done according to a routine, but when it comes to a cathartic for every patient on the third post operative day, say, or the same routine method of preparing the abdomen and the face, these are bad. I tell my internes that I have no routines except such as are understood between them and me. Orders to nurses should be specific for the specific case, and for a specific reason. These are some of the things that I would suggest.

Some internes are pig-headed and you cannot tell them anything; they are born that way, but others are susceptible to suggestion and I tell them one of the important things to learn in a hospital is a proper attitude towards the friends of the patients. When everything is serene and smooth it is easy. Anyone can talk to these, but when you have a lot of critical friends who are pestering you, it is exasperating to a degree. It is the simplest thing in the world to tell them to go to the warm place and get out, but if you want to do the big thing, set yourself the problem of meeting the unreasonable friend, the man or woman that is mad and doesn't like the way a patient is being treated. If you can make that one that comes in hot go out smiling and succeed in turning him from being a critical, unreasonable person into one who goes away thinking that that hospital is the best place in the world, you have accomplished something and you have schooled yourself. If you can do that with fixed intention, you have learned something.

DR. PATTERSON (closing) We have an obligation to fulfill to the internes which is an important part of our work, only second to the care of the patient. They have to be taken in hand and trained. They cannot be left too much to themselves. Some you will find can be directed or led into a proper appreciation of their opportunities for work, others will require considerable driving.

Endocrinology in Gynecology.

A Review of Reviews.

KATE C. MEAD, M.D., Middletown.

To endocrine enthusiasts in these days the beginning and end of all pathology, through the seven ages of man, is based on the effects of ductless glands on nerves and viscera. All the mutations of physiology and psychology are to them the work of a few peculiar cells gathered together for one great purpose near the largest nerve and blood centers.

To one writer there are no more males and females but "sexless majorities." Another likens the ductless glands to an orchestra playing life's tune to all eternity. Another, in the hectic rhetoric of an advertisement, says, "In the endocrine solar system of a woman the ovary is the sun around which revolve the spheres of physical well-being and mental health, separate, yet united within her complex body." And yet another blossoms out with this gem: "There is a pituitary stream coursing through the brain of a sweet young girl, and fountains of adrenalin bathing the nervous system of the woman in her prime, to control their activities and beautify their being, while the sad lack of ovarian juice turns women of middle age into men, like the pea-hens who strut in male plumage after their life-work of egg laying is finished."

This is merely a hint of the propaganda put forth by chemists and meat-packers in the not vain attempt to sell their goods by flamboyant advertisements. Doubtless many of us are influenced by the pseudo-experiments and polysyllabic words. Even the term endocrine is so new that it is not found in any dictionary, and we wonder if it means inner lilies, or internal cockle shells, or some kind of worms, all of which are translations of similar Greek or Latin words,—or must it mean ingrowing hairs? The learned editor of the *A. M. A. Journal* answers that it means "to separate within," and for this ambiguity we have to blame Shafer, of London, who, in 1916, found the word "complacencious" to himself.

But although the word is new we find old Hippocrates teaching the connection between the gonads, and cupping the breasts to cure amenorrhea, though it was nearly two thousand years before Meckel described the various ductless glands and attributed to them a function. Now, at last, theories of their function are accumulating at such an alarming rate that we tremble for the future of medical experimentation along these lines.

In his popular work on Endocrinology in Gynecology, Bandler¹ appeals to the neurologist, alienist and criminologist to cease speculating on the nerves and to study the ductless glands. He finds in the little pituitary glands of the female all the tenderness and sympathy which differentiates her from mere man, whose pituitary is of the brutal kind, although happily, something in his thyroid gives him greater memory and nobler instincts with which to combat his unfortunate pituitary secretion. For this reason Bandler would prescribe anterior pituitary gland to man to cure his pugnacity, and to woman thyroid treatment if she were too soft and clinging. But it is chiefly in women that he finds the greatest lack of endocrines in general, upon which to base his system of endocrinology. He admits that an insufficient diet, infectious diseases, a poor neuro-circulatory system, and weak ancestry cause hypo- or hyper-functioning of the endocrines, but from a long study of cause and effect he deduces a gland therapy with which to reclaim all women from ill health and set young and old to jazzing together. He considers fibroids and myomata of the uterus as expressions of excessive pituitary dysfunction, vomiting of pregnancy as a sign of persistent corpus luteum, while abnormal menstruation he believes is caused by dysfunction of the mammary glands or ovarian stroma, sterility and the phobias of the menopause by defective corpus luteum, the uterus being but an offshoot of the thymico-lymphatic system.

Over-enthusiasm is as dangerous as apathy, and to the disciples of glandular activity there is only one cause and one remedy for all diseases. They discover that a patient lacks lateral incisor teeth, that she has moles on her skin, is short of stature and has thin hair, and they at once declare that her Fallopian tubes are

¹Bandler, S. W. The Endocrines. W. B. Saunders Co., Phila. 1920.

twisted, her ovaries imperfect, and they prescribe for her pluri-glandular treatment.

To the more moderate enthusiast, however, we may turn for a safe middle plane upon which to base our review. Novak, of Baltimore, for example, says: "There is no field in which the study of endocrinology is of so much importance as gynecology. The highly volitional functions of the body are under the control of a rapidly acting nerve mechanism, but the primitive vegetative functions are under the sympathetics, which are activated by the hormones of certain endocrine glands, such as the ovary which seems to have three separate hormones, the corpus luteum, which influence menstruation, the follicles which determine sex characters, and the stroma which concerns bodily functions."² For example, amenorrhea in obese women may be caused by overaction of the ovarian stroma, in thin women it may be due to lack of corpus luteum, while dysmenorrhea and menorrhagia in young girls comes from hypoplasia of the uterus or hyperplasia of the endometrium and is due to defective ovarian follicles. But the rock bottom reason for these defects must be sought in heredity, which, as Bandler says, "shapes our ends, while endocrinity runs parallel with our lives." Whatever this may mean we know that heredity which gives us our glands gives us also our nerves and bones and muscles and the wherewithal to react properly to our environment, and in this respect, pound for pound, women have more endurance and can stand more work, worry and suffering than men, although when women do succumb to the strain of menstruation, pregnancies and the menopause, they never after react normally or with their former promptness.

Hypotheses are always interesting; if, for instance, a pineal tumor was found in a little girl to whom theories of the immortality of the soul were not bewildering, pineal tumors might be said to cause precocity, but for a working therapy of endocrines we must have more than mere hypothesis. We must prove, for instance, whether certain symptoms from which patients suffer

² Emil Novak, *Endocrinology*, Sept., 1920, p. 411.

Emil Novak, *The Role of the Endocrine Glands in Certain Menstrual Disorders*, J. H. Bul. 1916, A. M. A. Journ. 1920.

are caused either by splanchnoptosis, vagotonia, sympathicotonia, or by deficient ovaries and thyroid, if we are to give them successful treatment and relieve their suffering. In the middle-aged woman whose abdominal wall has been stretched by repeated pregnancies, and the moorings of her organs loosened by heavy strains, and great rolls of fat deposited where should be firm, glycogen-storing muscle, then there must be abnormal circulation in the splanchnics, irritation of the solar, hypogastric, and ovarian plexus, perverted metabolism, and neuroses of the ductless glands. Splanchnoptosis is found by Einhorn in 35% of women, by Glenard in 20%, and by Thorndyke in nearly 50%. Associated with vagotonia it causes the symptoms of cholecystitis and hyperacidity of the stomach, vomiting, diarrhoea and pain, without any reference to the ovaries or thyroid. Unstable metabolism in a tall slip of a girl may mean simple fatigue, from too much study and dancing, but it may also mean pituitary and thyroid derangement, for all the symptoms of early adrenal and thyroid dysfunction are but the symptoms of neurasthenia, with vaso-motor instability, muscular weakness, altered metabolism and general imbalance.

Differentiation of these symptoms in an office consultation is often difficult. We have no time to count the basophiles for an anterior pituitary test, use the Benedict metabolism test for the thyroid, Goetsche's adrenalin experiments, or give a bismuth meal and take an X-ray picture, even if we had all the materials for such work. The patient comes as she would go to a plumber for the quickest possible repair and therefore we make a hurried catalogue of her subjective symptoms, look for an endocervicitis, a tender ovary, pus teeth or bad tonsils, or a ptosed colon, or arterio-sclerosis and a banging second sound in her heart, or hyperacidity of the urine and a torpid liver, and we give her the old remedies of calomel, arsenic, nux vomica or quinine, attend to her local toxic foci and she will probably get well as soon as if we examined her with the particularity of a Mayo clinic and prescribed some combination of endocrine glands which she might not take properly because of the expense. This may seem superficial, but it gives the average doctor and patient satisfaction in all but doubtful cases, which

should be sent to a diagnostic clinic for complete overhauling and expert treatment. Bandler says that he gives glandular treatment to 90% of his office patients, and we could do the same if we chose to imitate rather than study.

It is to construct a bridge between cause and effect in the vegetative system that theories of endocrines seem necessary in gynecology. A woman who reacts painfully to her environment must have more than one wrongly adjusted valve in her machine. Solomon Solis Cohen³ speaks of the whole domain of the autonomic-sympathetic-endocrine complex as a "scoop net" containing much worth studying but without the hope of finding pure cases of either, and therefore, he says "we have only vague views as to the fundamental factors concerned in these disturbances." Because hysterical women have attacks of tachycardia, fits of shivering and giddiness is not alone proof that they have either vagotonia or endocrine disturbance, or both. They may have enteroptosis and prolapsed uterus, diseased tonsils and a tendency to colds and infections, and many other symptoms which point to constitutional inferiority. In such women the climacteric gives rise to many vagotonic symptoms, hyperacidity, high sugar tolerance and colic, beside thyroid enlargement and its symptoms of sweating, obesity, falling hair and low temperature, although curiously enough it has been said that 90% of the dyspepsias of the middle-aged woman are due to psychoneuroses amenable to psychic treatment alone. On the other hand a loose kidney or kinked ureter may cause all the symptoms of vagotonia and simulate ulcer of the stomach or appendicitis. Anomalies of the solar plexus may interfere with the proper functioning of both vagus and sympathetics, causing hiccups and headache and girdle pains with other symptoms of spinal disease as of ovarian dysfunction.

According to Cannon,⁴ every disease has its psychical side; secretion of all the digestive glands is stopped under great excitement; tears flow, cold sweat pours out, the face pales, fatigue vanishes, all because of a psychic drive on the adrenals which

³ Solomon Solis Cohen, Vol. I. Dedicated to Sir William Osler, p. 404.

⁴ Cannon, W. B., *Bodily Changes in Pain, Hunger and Fear*. D. Appleton & Co., 1916.

excite the sympathetic fibres of the viscera; sugar is liberated from the liver even to glycosuria, the muscles are flushed with working material for great feats of strength and endurance even in worn-out middle-aged women. Test them with pilocarpine and atropine and they will react in true vagotonic fashion with extra systoles, sweating, and cold hands and feet. Or test the most wretched of them with two grains of desiccated thyroid every day and they may be well in a month,—their hair comes in, eyebrows grow full, arthritis is cured, and their vegetative pathways become normal again, or—this test may make their condition much worse.

Pottenger⁵ tells us that the adrenals, thyroid, pituitary, ovaries and corpus luteum are activated by the sympathetics, not the reverse, and the pancreas and duodenum are dominated by the vagus. But these same nervous and glandular symptoms are explained by other specialists quite differently. The stomach specialist finds in the stomach of the neurasthenic woman some fundamental pathology such as cancer or ulcer rather than hypo-thyroidism; the heart expert finds neuro-circulatory asthenia or myocarditis; the X-ray man finds a fish-hook stomach or constrictions in the colon; the psychiatrist finds heredity and faulty environment as a cause of the fatigued nerves, while the surgeon and the dentist see good reasons for several operations rather than endocrine therapy.

To the endocrinologist, however, all diseases start from the ductless glands. He describes the diseases of puberty as “endocrine events,” meaning thereby that when the pineal and thymus glands fail to function the thyroid and ovarian hormones take the leading rôle. The girl becomes emotional, self-willed, and egotistic. She weeps easily, dislikes her school routine, and wishes only to dress and dance, simply because of the excessive thyroxin circulating in her blood. Fortunately this period is limited, and soon the thyroid diminishes its activity, helped along by iodine in small doses if need be and ovarian glands assume control. One of the most common disturbances of puberty in girls is excessive and prolonged bleeding from the uterus follow-

⁵ Pottenger, F. M., *The Relation of Endocrinology to Vegetative and Visceral Neurology*. N. Y. Med. Journ., 1921.

ing infectious diseases and intestinal irritation, through ovarian imbalance. In later life, however, we may find menorrhagia caused not only by endocrine disturbance but by arterio-sclerosis of the uterine vessels, by neuro-arthritis, or uterine polypi, or ileo-pelvic congestion along with varicose veins of the legs. Dr. Ries, of Chicago, in writing on this subject, gives as another cause of the pain and hemorrhage in menstruation the alternate swelling and disappearance of a persistent corpus luteum; and Kelly, of Baltimore, refers it to poor physical development, a hyperesthetic endometrium in a neurasthenic woman, active uterine adhesions, a hematoma of the ovary or a swelling of the tube, in which cases no amount of gland therapy would cure the trouble nor would curettage or dilatation of the cervix benefit the patient.

There are also many other causes for amenorrhea besides dysfunction of the endocrines,—opium, lead, and other poisons, change of climate, grief, tuberculosis, syphilis and malnutrition, as well as the normal one, pregnancy. The endocrine enthusiast, however, finds numerous reasons for giving a pregnant patient endocrine therapy, and if her ductless glands are not functioning normally he predicts a hard labor or a miscarriage unless the fault can be corrected. After labor he attributes to inactive ovaries the disturbances of lactation, to tired thyroids somnolence and apathy, high blood pressure, low metabolism, reduced coagulability of the blood and constipation. DeLee pointed out in 1913 that pregnancy was a pathological process, and it is true that some women seem to give their all for their children as fishes spawn and die, but the endocrinologist says such a belief is due to a misunderstanding of the interrelation of the ductless glands. The vomiting of pregnancy, for example, he attributes to an over-active or abnormal placenta which inhibits the development of the corpus luteum and of the adrenal secretion, while, at the same time, over-stimulating the thyroid and causing its inertia after labor. Upon this theory is based the treatment of nausea and vomiting of pregnancy by corpus luteum and adrenalin.

It would, therefore, seem that if women could be safely steered through their period of puberty and child-bearing by means of

gland therapy they could be carried easily through the climacteric which they generally have been taught to dread. Graves, of Boston, prescribes ovarian residue, the fat and corpus luteum having been removed, for the symptoms of the menopause; while Burnham relies upon the corpus luteum alone if he can get the fresh gland. During the climacteric, excessive ovarian function is seen in the flushings and other phenomena of the vaso-motors, but if the ovarian function is below par the patient grows fat and is inclined to be melancholy. Osborne suggests that the fatness is due to the storing up of the salts normally excreted in menstruation, although there may be also a lack of thyroxin to split the fat cells; but whatever the cause the symptoms may improve under some form of ovarian therapy. A very small bit of ovarian gland transplanted into the patient's abdomen or tablets of the residue, taken with regularity, makes all the difference between a neuro-circulatory asthenic, emotional individual, always looking for sympathy and talking about her operations and her doctors, and a healthy woman who is able to think of what she can give, rather than how much she can squeeze out of society. Psychotherapy helps this sort of human sponge but she may also need pituitary gland for her headaches, or thyroid for high blood pressure, or, if she has skin diseases, urticaria, eczema and pruritus, or gout, she is perhaps a candidate for adrenal therapy. In fact the dermatologist finds many reasons for prescribing dried glands, as in the acne and dermatitis of puberty, the pigmentation, itching and scleroderma of pregnancy, and the alopecia, psoriasis and bronzing of the skin after the menopause. Dr. M. Allen Starr⁶ gives one grain of Burroughs and Wellcome's thyroid in divided doses each day to women over fifty who have dry skin, brittle nails and thin hair, Scholtz⁷ gives ovarian gland to the hyper-thyroids for their localized erythema, chronic eczema, and nights murdered by pruritus, while another writer gives atropine and adrenalin for their purpuric rashes and diarrhoea.

From these suggestions we are forced to admit that endocrine

⁶ M. Allen Starr, Vol. II, Dedicated to Osler.

⁷ Scholtz, Med Record, 1920, p., 184.

therapy must be of value in gynecology, but in many cases the results are more satisfactory if some of our old drugs are combined with the dried glands. Iron, arsenic or iodine plus adrenalin or thyroid often work better than one alone, and the combination of either mercury, ergot, hydrastis, atropine or strophanthus with ovarian residue is good. Strychnine stimulates the adrenals, quinine and belladonna increase the effect of corpus luteum in hyperthyroid or vagotonic cases, but there is no specific for either the vagotonic or sympathicotonic patient who is not willing to coöperate with the physician in making her cure a success. A recent writer in the A. M. A. Journal tells us in gynecological cases to try organotherapy last, but perhaps it would be better to say try surgery last, after using radium and psychotherapy and hygiene along with a careful dosage of glands.

Empiricism is probably not worse in gland therapy than in any other therapy, but where two thousand abstracts in one year in one journal are concerned with this one subject, from all over the world and from writers of international reputation, the rank and file of practitioners must be excused for giving the single and combined glands a fair trial even though the propaganda is often based on trade. If we could hear from physicians of the failures from this treatment as we hear from physiologists the theories based on experiments on rats and bats and tadpoles we might evolve a more scientific dosage, and it is with this thought in mind that I have reviewed my records of the past year to see how the accumulated statistics look, and it is not surprising to find our former remedies still worth while. In the old days the treatment of scanty menstruation in a young woman was by fresh air, good food and plenty of sleep, plus iron, arsenic and cathartics, with correction of a malposition of the uterus if needed, and even now it is still a question whether the combination of these remedies with hormotone or mixed glands or single gland tablets gives better results. Suppose there were a malarial infection, quinine would still be the sheet anchor, or in syphilis what should we do without salvarsan? The new remedies must be tried with such brains as we possess, and I have therefore picked a few cases from my records to show how impossible it is to treat all cases by any

preconceived plan, or use the 90% basis of ductless glands or psychotherapy.

Take this case of a society women at the menopause, with her nervous irritability, flushings, puffy face and obtruding eyes. Her pulse and blood-pressure are normal, her urine and blood show nothing out of the ordinary, she has been examined and treated by five doctors, "none of whom, she said, understood her case." She had been given several forms of thyroid and ovarian extract, which she was sure had made her worse, but by a lucky chance we discovered that she was a victim of arsenic poisoning from a nasal dilator which had arsenic in its soldered bulb. This had caused an ulcerated spot in one of her nostrils from which the arsenic was absorbed with toxic effect on the thyroid. We are told that menstrual blood carries off both iodine and arsenic, but here we had no menstruation and in consequence myxedema from thyroid fatigue.

Another case was of the surgical museum type, a victim of many operations on teeth, tonsils, and appendix. One ovary had been deleted, the uterus twice curetted, perineum and hemorrhoids remodeled; the patient was wearing a ptosis belt, and had had bismuth meals X-rayed. Her menopause symptoms had been treated by excellent physicians in all parts of the country, with all sorts and quantities of gland therapy; after one kind of ovarian capsules she had had a severe attack of giant hives with vomiting and prostration. All of these details and many more she had written down with great particularity and she was full of anxiety for herself, but what she needed was psychotherapy rather than more evisceration or endocrine therapy. She was a brilliant woman mentally with constitutional inferiority which gland therapy could never cure.

Another neurasthenic, aged thirty-five, had a poor family history; her grandparents died of tuberculosis or apoplexy, her father died of paresis at the age of fifty-five. Her mother is still living. Her four brothers and sisters had either tuberculosis, neurasthenia, or gall stones. Her own ill health began with scarlet fever at the age of sixteen. She is a victim of endocrine disturbance from head to foot. She is a vagotonic, neurasthenic,

ductless gland wreck, with splanchnoptosis, fibroid uterus, diseased tonsils, urticaria, and annoying tinnitus. At the head of her bed she keeps an array of drugs which would fill an apothecary shop; in the refrigerator she has buttermilk tablets, vaccine for colds, and several gland preparations. She can never decide which treatment is the best, nor can she carry out the principles of psychotherapy which she learned at Cromwell Hall. To endocrinologists hers would be a typical case of ductless gland imbalance, curable by dried endocrines which have been faithfully prescribed; but what is the matter with the theories in her case, and why do they fail? The answer is plain.

Another patient is a woman of thirty who has never menstruated. She is undersized, melancholy, has warty skin and pudgy nose. Her father died young and her mother has frequent sick-headaches. She has definite symptoms of pituitary and thyroid dysfunction, but a fairly thorough treatment with gland therapy, one or two kinds at a time, have proved absolutely negative. Possibly a Wassermann test might have been positive but neither that nor a vaginal examination was permitted. She is evidently headed for the Hospital for the Insane where it may be too late to give her any help.

Another interesting case is that of a young woman who has abortive ears, defective skull, thick nose and lips, a dilated heart, curved spine, late, painful and prolonged menstruation with epileptic attacks, a feeble body but a bright mind. Her menstrual and epileptic attacks have been much benefited by ovarian and thyroid glands. Bandler has a good deal to say concerning the endocrines and functional epilepsy, believing the attacks to be due to ovarian hypo-function with anemia, and he seems to be very successful in supplying the proper amount of dried glands, (40 c. g. of ovarian and 10 c. g. of thyroid, daily for one month,) and curing the attacks as well as regulating menstruation. This is also his treatment for mild depressions bordering on manic-depressive insanity or dementia praecox. But we have seen many cases of ovarian epilepsy do as well on iron and bromides with correction of diet and the use of cathartics when needed.

A few other cases from my records may be of interest as

bearing on this subject. Of thirty-eight patients treated for various reasons by ovarian residue nine young girls were cured of amenorrhea, five women were relieved of climacteric flushings, etc., and the rest, the majority in fact, gave indifferent results. Ten cases of infantile uterus with dysmenorrhea were much improved by whole ovarian gland, although occasional doses of acetanilid or benzyl benzoate were required for the pain. Of six cases of sterility treated by corpus luteum two soon became pregnant and one is now carrying a baby to term after several miscarriages. Of a long list of menopausal patients suffering especially from rheumatism three were benefited by thyroid treatment after a failure with salicylates. Five out of seventeen cases of general debility of middle-aged women were helped by hormotone or mixed glands after no improvement from the old-fashioned tonics. Several cases of splanchnoptosis with hyperacidity were greatly relieved by a combination of Carnrick's fer-ovarin with ox gall compound. Four little girls were given adrenalin for enuresis; three were cured and the fourth did not take the medicine or diet faithfully, and nothing was accomplished in her case or in several adult cases where there was a chronic lack of tone of the bladder. Six of the adult neurasthenics who had failed to receive any benefit from gland therapy improved rapidly from large doses of protiodide of mercury, $\frac{1}{6}$ grain t.i.d., a drug which is perhaps not sufficiently praised in vagotonia and ovarian dysfunction. Most of these patients needed local treatments for malpositions of the uterus or foci of pus or catarrh in the cervix. Many were fitted to belts or corsets for wandering kidney or ptosed colon, etc., while nearly all required alkalies and laxatives.

Therefore, in closing this brief review it might be said that since no definite scientific experimentation was made, no results of value were obtained either for or against the use of endocrines in gynecology. But until the busy doctor can get scientific apparatus with which to make quick and accurate examinations of his patients, he will have to blunder on in his therapeutics and try to do no harm if perchance he may do some good. Otherwise adequate diagnostic clinics must be opened in every county or large town to which rich and poor may be sent for diagnosis as we now

send blood and urine to the laboratories. Scientific therapy, not only of endocrines but of all remedies, should follow accurate diagnosis of disease whether simple or complex.

KATE C. MEAD.

Middletown, Conn., May, 1, 1921.

DISCUSSION.

OLIVER T. OSBORNE, M.D., New Haven. [Read by the Secretary.] The subject of the physiology of the endocrine glands and of the symptoms of their pathology, and the therapeutic value of their extracts is of so much importance and creates so much interest, that very much has been written and said with too much enthusiasm and without scientific proof. There is no question that the child, man or woman is physically and mentally what the secretions of their endocrine glands determine. It has been clinically and experimentally demonstrated that the secretions of some, at least, of the endocrine glands are essential for the human being to be normal. However, physicians and even the laity are unfortunately becoming over-enthusiastic in the use of glandular extracts and of glandular mixtures, concerning the activities of which they know but little, and even patent medicine advertisements are now lauding the use of monkey or other gland materials.

Before deciding that a glandular extract is indicated, one must investigate the whole life history of the individual, noting development in all its details from babyhood, through childhood, puberty and adult life, to the changes from forty-five to fifty, and to senility. The hair, the teeth, the nails, the skin pigmentations, mental activity, the digestion, the blood-pressure, and the character of the circulation all will give indications of the sufficiency or insufficiency of one or more glands. It should also be recognized that the glandular functions are interlocking, and deficiency of one gland may cause deficiencies or hypersecretions of other glands, and the symptoms or conditions present are the outcome of these several disturbed functions. Therefore, to empirically administer a single or several glandular extracts to a patient without the most careful supervision, or without the understanding that undesired activities may be developed, is inexcusable. On the other hand, from the very nature of these glandular tissues and the fact that the laboratory, even by extirpation, cannot always develop positive chemical or hormone values of the glands, necessitates well directed clinical studies. In other words, many of the valued uses of these extracts have been discovered by clinical trials.

The endocrine glands that have been proved to have positive therapeutic value are the thyroid, parathyroid, pituitary, suprarenal, and corpus luteum. Other glands that have therapeutic values, which, however, are not as

generally recognized or accepted, are the ovaries, testicles, and mammary. All of the other several endocrine gland and organ extracts are as yet subject to a longer clinical proof before they can be accepted as meeting definite indications in the treatment of diseased or disturbed conditions.

Extracts of these glands are frequently used in gynecologic conditions. I believe there is no question that the pregnant woman should be carefully studied to determine not only whether she is receiving enough vitamins, but also whether her glands of internal secretion are sufficient. Many of her disturbances while carrying the child, her poor health after parturition, and the impaired vitality of her child may be prevented by satisfying the endocrine and vitamin requirements for her double metabolism during the period of pregnancy.

The pituitary gland is primarily of more importance to the female than to the male, while the suprarenal glands are primarily of more importance to the male than to the female. The pituitary, in conjunction with the thyroid, increases in size and hypersecretes just before, or during the first part of menstruation, and some of the headache of women at these times is due to the congestion of the pituitary gland.

As I pointed out very many years ago, the first as far as I am acquainted with the early literature, mammary gland extracts when fed to young girls who flood at their menstrual periods or who menstruate too frequently will inhibit this condition. I also pointed out many years ago that the disturbances of the menopause are largely due to disturbances of the glandular secretions, and that if the thyroid ceases its periodic increased activity at the time the ovarian glands diminish their activity, the hot flashes, nervous disturbances, palpitations, etc. will not occur. On the other hand, if the thyroid diminishes its activity too rapidly or too completely, the woman rapidly adds weight and shows other signs of hypothyroidism. Thyroid treatment is needed when these latter symptoms are present. Sometimes there is a decided loss of tone in women at this period in which ovarian substance frequently acts as a stimulant and is beneficial. Also ovarian extracts are of value at any period when menstruation is scanty or occurs only at long intervals.

The corpus luteum is certainly a distinct gland although it is located in the ovary. It is a stimulant to the uterus and causes its mucous membrane to become ready for pregnancy, or if conception does not occur, allows the usual uterine flow. Although this gland is frequently administered with success in amenorrhea, I do not believe that it causes ovulation and consequent menstruation, but it does cause the uterus to be ready to bleed. This gland is enlarged and theoretically should be doing more physiologic work during the first three months of pregnancy although the woman normally does not menstruate. Its secretion may be the stimulant that causes the placenta to properly grow.

Corpus luteum has been frequently administered for the high blood

pressure that occurs in women at the time of the menopause, and with some success; but it is a potent glandular substance, and may lower the blood-pressure more than is desired. In other words, one must watch the results from corpus luteum administration as carefully as with thyroid.

During periods of amenorrhea, or at the time of the menopause, or perhaps some time later, pigmentations are likely to occur, forgotten freckles become prominent, and moles develop. These seem to evidence a disturbed adrenal secretion, probably of the medullary portion of the adrenals. At present I am studying clinically the activity of extracts from the cortical portion and extracts from the medullary portion of the adrenal glands. But administering the substance as a whole will not only many times stop this tendency to pigmentation and clear up brown spots, but will also cause improvement in the circulation, when there is low blood-pressure.

As stated by Doctor Mead, we should not forget the value of well tried and useful drugs because we are in the age of the investigation of the activities of the glandular extracts. On the other hand, the value of iodine is largely its action on the thyroid, saturating the thyroxin and increasing its output. The value of iron, when needed, is of course unquestioned. A few days of bromide treatment may be just what a nervous, neurotic individual requires. In such conditions calcium should not be forgotten. Parathyroid disturbance is often in evidence, and alkalies and calcium salts especially are of value. Personally, I believe arsenic should never be administered unless there is a definite reason for it, and generally some infection.

Finally, I would be very careful in polyglandular therapy, much as we should be careful in advising or using polyvaccines.

JESSIE W. FISHER, M.D. (Middletown). *Mr. President and Members of the Society:* While we are floundering around in this endocrine uncertainty, we must remember that there are certain very definite tests which give fairly definite results in some of these glandular dysfunctions, notably in thyroid disease.

While no functional test invented is 100% efficient, yet great usefulness is claimed for the epinephrin chloride, so-called Goetsche's test, which any physician can carry out in his office without apparatus other than a hypodermic syringe and blood pressure apparatus, and it gives very valuable indication in thyrotoxicosis.

No test has any significance unless there is a rise of at least 10 points in pulse and systolic pressure, with clear cut subjective symptoms with tremor following the injection of 0.5 c.c. adrenalin. The test must be preceded by a period of rest.

Sugar tolerance is another valuable function test. The technic of the sugar test is as follows: The patient is not allowed breakfast, about

8 A.M. a sample of blood is taken for blood sugar determination. The patient is then weighed, after which 1.75 grams glucose per kilogram of body weight dissolved in 250 to 300 c.c. of water is administered, blood withdrawn at half-hour periods for three hours, urine being examined at the same time. In the normal individual the blood sugar increases rapidly, being at its height in a half hour, falling almost as rapidly to normal in two hours, the urine remaining sugar free; while in hyperthyroidism the hyperglycæmia is less rapid, the height is not reached until the end of one and one half hours, the return to normal taking three hours, while the urine shows the presence of sugar.

Response to thyroid feeding is a dangerous test, but may be cautiously used, beginning with small doses; a step ladder increase in dosage produces an increase in pulse rate and other symptoms. This is an *extremely* dangerous procedure, when there is already a thyrotoxicosis, and must be carefully used, if at all. This test is the one so extensively advertised and is mentioned only to be condemned.

The most accurate method of studying these cases is by means of an apparatus showing the metabolic rate, of which there are several types. It can be successfully used at the bedside by physicians who have been carefully instructed in its use. Such an apparatus does away with the old hit or miss type of diagnosis in hypo- and hyperthyroidism and as a guide to treatment it is invaluable.

The increased metabolic rate is never an obscure indefinite symptom of hyperthyroidism. If there is an increase the diagnosis is settled, the seriousness of the pathology being proportional to the extent of the alteration in the rate.

In hypothyroidism the range of variation is from 10 to 50% below the normal, in hyperthyroidism the range is from 10 to 100% above. While there is a so-called normal metabolism, every individual is a law unto himself, so that slight variations are not to be considered pathological.

Benedict, of Boston, the originator of the apparatus, says, "There is no inflexible standard for normal metabolism for any given age, weight, height and sex, from which all normal individuals never vary." 10% variation above or below is generally considered a normal variation.

So far as I have been able to ascertain there are but two hospitals in the state equipped to do this work. Three others are contemplating inaugurating an apparatus.

Somewheres between the dangerous over-enthusiasm of the disciples of glandular therapy and the apathy of the general practitioner there is a sane middle ground, which can be found only through the co-operation of physicians, either in groups or centering around hospitals provided with basal metabolism apparatus and equipped to make other functional tests as well. No town is too small for the men to get together and organize such co-operative groups, which will increase their own efficiency and give their patients a better chance.

The Conservative Treatment of Eclampsia.

ARTHUR MORSE, M.D. AND LUTHER K. MUSSELMAN, M.D.,
New Haven.

(From the Department of Obstetrics and Gynecology, School of Medicine, Yale University.)

Ten years ago, as we all remember, the tendency was, in cases of pre-eclamptic toxæmia and eclampsia, to deliver immediately by such operative procedures as manual dilatation of the cervix, vaginal hysterotomy or abdominal Cæsarean section. During the last decade, however, the therapy of eclampsia has been notably modified so that now we make use of less radical methods in the treatment of the disease. The purpose of this paper is to outline briefly the therapeutic measures which we employ in such cases in the Woman's Clinic at Yale.

The treatment of eclampsia is prophylactic or curative. Prophylactic treatment, that is, the careful supervision of women throughout pregnancy, begins with a consideration of the patient's general condition, a study of the kidney function as shown by the total quantity of urine voided in twenty-four hours, the examination of the urine for the detection of albumin, and the measurement of the blood pressure at definite intervals.

The patient herself may derive valuable information from the daily output of urine. The quantity voided during the period should be at least one quart and preferably two. The examination for albumin of course must be made by some one trained in the methods of urinary analysis. Such an analysis should be carried out monthly during the first half of pregnancy and at least every two weeks during the last half. A faint trace of albumin in a voided specimen may be looked upon as of little significance, provided there are no other indications of toxæmia. On the other hand, the presence of one gram of albumin to the litre together with other evidences of toxæmia indicates an impending eclampsia.

Of even greater value is the measurement of the blood pressure throughout pregnancy, for a knowledge of the range of arterial

tension gives most important information regarding the onset of a toxæmia. Studies indicate that the systolic pressure during pregnancy remains within normal limits (that is about 115 mm. of mercury) although, as Slemons has shown, in the early months the values are somewhat lower, and in the latter months slightly higher than are found in the middle trimester of gestation (Chart I).

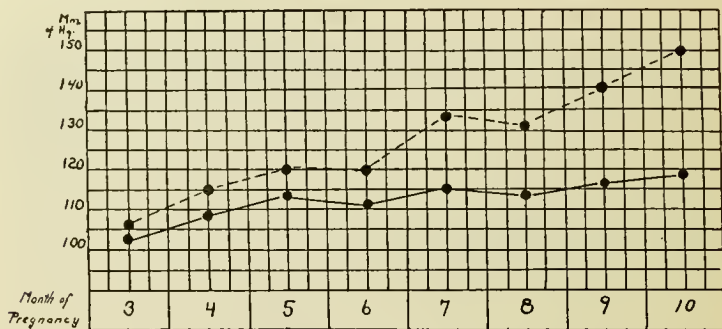


CHART I. Systolic blood pressure during normal pregnancy. The monthly average is represented by the solid line. The tension indicated (115 mm. of mercury) is considered normal. The broken line indicates the highest observation during each month. A pressure of 150 mm. of mercury should be regarded as an early sign of pre-eclamptic toxæmia (Slemons).

The maximum degree of hypertension presented by normal cases is of course of great practical importance, for we wish to know what elevation of pressure indicates the onset of a toxæmia. Not infrequently in the latter half of pregnancy hypertension occurs in patients who pass through this period and labor normally. Even in the absence of a toxæmia, the pressure may reach 150 mm. of mercury. Nevertheless, in these circumstances it is advisable to regard the hypertension as the earliest sign of pre-eclamptic toxæmia and to begin treatment at a time when it is most likely to prove effective. On the other hand, it occasionally happens that even in the presence of a frank eclampsia the blood pressure curve remains low. Danforth has already called atten-

tion to this phenomenon and recently we have observed low pressure in two patients with convulsions. In each woman the systolic pressure was 130 mm. of mercury, although all other signs of a grave toxæmia were present.

The diagnosis of a toxæmia having been established, the patient is immediately put to bed. The skin is kept active, if necessary

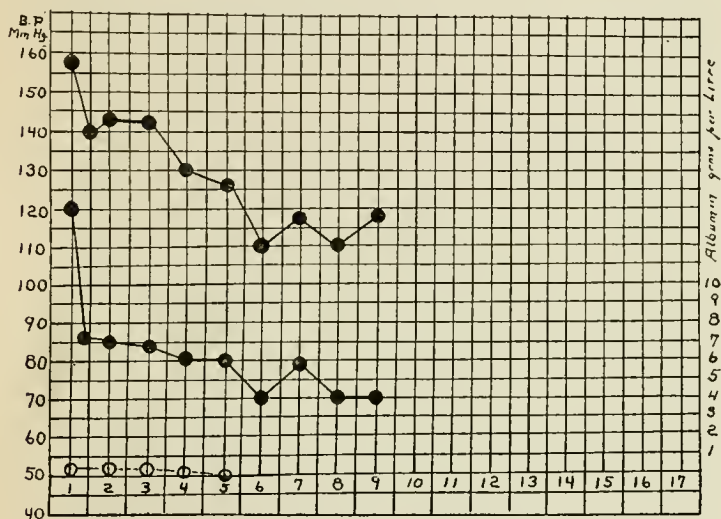


CHART II. Systolic and diastolic pressure in pre-eclamptic toxæmia. Rest in bed with hygienic and dietetic measures caused reduction of pressure, disappearance of albumin and improvement in symptoms.

by means of a dry hot pack. The intestinal tract is stimulated by the administration of an ounce of Epsom salts by mouth, and fluids are forced, at least four litres of milk and water being given every twenty-four hours. Blood pressure estimations are made twice daily and each twenty-four hours the output of urine is measured and the total quantity of albumin is determined by the Esbach tube. In addition, in more severe cases of toxæmia we resort to venapuncture, removing from 600 to 1000 ccs. of blood from an arm vein.

How shall we know whether the patient is responding satisfactorily to therapeutic measures? In order to follow the progress of the disease a special chart is imperative. Upon this chart in addition to notes regarding the pulse, respiration, temperature, blood pressure and albumin, there must be an accurate record of

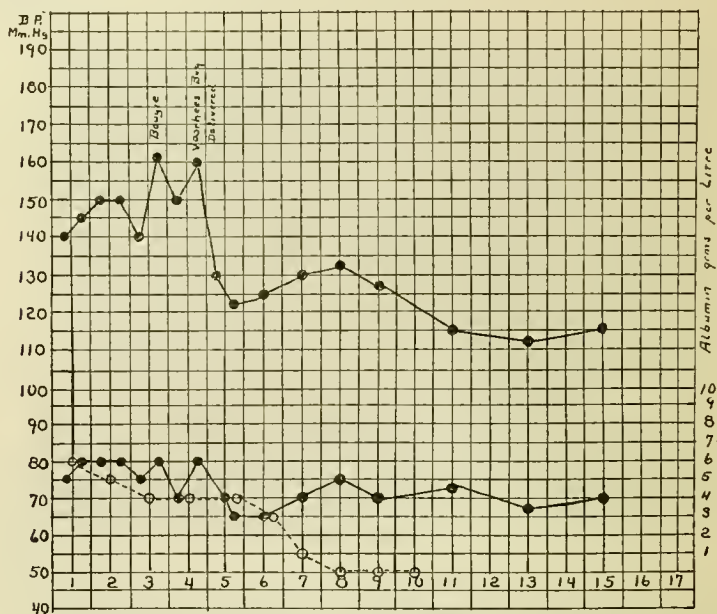


CHART III. Systolic and diastolic pressure in pre-eclamptic toxæmia. Labor induced by bougie and Voorhees bag because of rise in systolic pressure, persistence of albumin and increasing symptoms. Fall in systolic pressure and disappearance of albumin following delivery.

the intake of fluid by mouth, hypodermoclysis and proctoclysis and of the output of urine, fluid stool and vomitus. Valuable information is derived also from a knowledge of the number and character of the bowel movements. The occurrence of convulsions, their duration and the degree of their severity must be charted. Favorable indications are, an amelioration of the symptoms, an increased output of urine, a decrease in the quantity of

albumin and a fall in the systolic pressure (Chart II). On the other hand, subjective signs which remain unchanged or become worse, a decrease in the twenty-four hour quantity of urine, an increase in the output of albumin, and an increasing hypertension, indicate that we are not succeeding in controlling the toxæmia. A continued daily output of five grams of albumin to the litre or a blood pressure which persists over 150 justifies interference irrespective of other symptoms (Chart III).

Having decided to terminate the pregnancy, we make use of a large Wales bougie or a Voorhees bag to inaugurate labor. Occasionally, it happens that the bougie is unsuccessful in stimulating uterine contractions. However, failing in this, it usually brings about such a softening and dilatation of cervix that at the end of twenty-four hours the introduction of a medium-sized bag is possible. If when the patient is first seen the cervical canal is sufficiently patulous to allow the immediate introduction of a bag, we prefer to employ this instrument. Following an obliteration of the cervix many patients are delivered spontaneously although we do not hesitate to perform a low or mid forceps if such a procedure is indicated. Unless the circulation has been depleted by venapuncture the loss of 500-600 ccs. of blood during the third stage is probably of advantage. Accordingly, we are accustomed to allow the uterus to bleed rather freely during and following the separation of the placenta. Following the emptying of the uterus the patient's condition generally improves rapidly. During convalescence we depend again upon the analysis of the urine and the measurement of the blood pressure to tell us the degree of this improvement. Water is still forced, the bowels are kept open and the diet is restricted to fluids until the albumin has disappeared from the urine and the systolic pressure has fallen to normal.

Turning now to the question of frank eclampsia, we find that the most radical changes have taken place in the method of treatment. Ten years ago, as we indicated above, women who entered hospitals suffering from toxæmia of pregnancy and convulsions were delivered at once by such radical procedures as vaginal hysterotomy, manual dilatation of the cervix followed by

version and extraction, or by forceps, or abdominal Cæsarean section. At the present time, however, most authorities employ a modified Strogonoff treatment, interfering only when the cervical canal has become obliterated and the external os fully dilated.

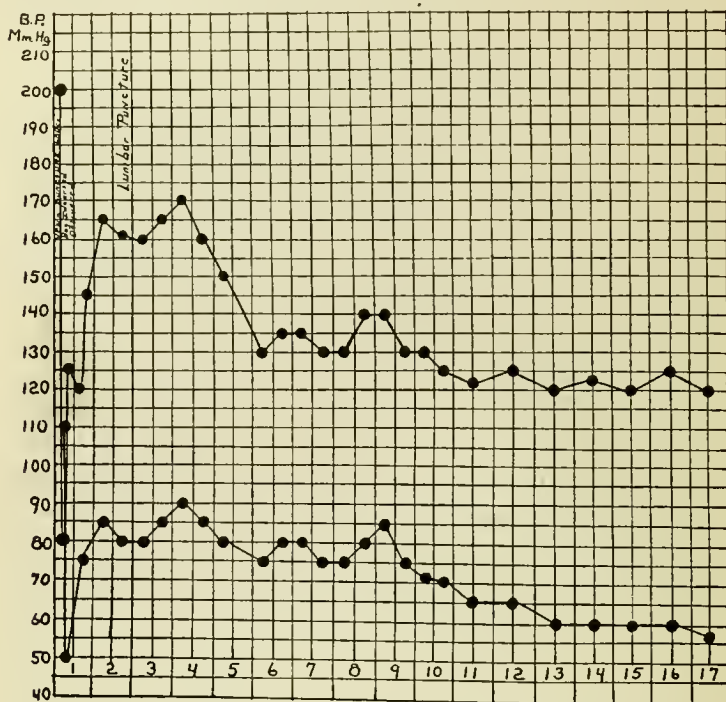


CHART IV. Systolic and diastolic pressure in eclampsia with convulsions. Marked fall in blood pressure coincident with convalescence. Lumbar puncture caused decided improvement in symptoms. Albumin absent throughout disease.

During the past three years a similar method of treatment has been employed in practically all of our cases of eclampsia. Upon admission, from 500 to 1000 ccs. of blood are removed from the circulation by venapuncture. Experience has shown that no

untoward effects result if proper consideration is given to the physique of the individual patient. A dry hot pack is used; Epsom salts is given by mouth or through a stomach tube and fluid is forced by mouth if possible, and administered also by hypodermoclysis and proctoclysis. For hypodermoclysis a normal saline solution is employed, the needle is introduced under the breast, and care is taken that the mammary gland itself is not penetrated. For proctoclysis we employ ordinary tap water. We do not make use of the continuous drip, but prefer to administer the tap water in quantities of 200 ccs. every two hours or 400 ccs. every four. We have adopted the latter method because in women who are suffering from frequent convulsions, the prolonged retention of the rectal tube is usually carried out with difficulty. If the patient is restless, morphia is given hypodermically, though not, as has been suggested by certain authorities, to the point at which the respirations are notably reduced.

Fortunately, in most cases of eclampsia it is unnecessary to induce labor, for our experience teaches that uterine contractions are usually inaugurated with the onset of the convulsions. In case labor has not set in, however, we employ a bougie or a Voorehes bag as indicated in the particular case. In many instances spontaneous delivery follows full dilatation of the cervix, although under the latter circumstances we do not hesitate to employ a mid or low forceps operation if this procedure is indicated.

Following the emptying of the uterus, the administration of copious quantities of water by mouth, under the skin and by rectum, is continued. The patient is kept in a dry hot pack until free perspiration occurs. Magnesium sulphate or croton oil is administered as indicated, the stomach tube being employed if the patient is unconscious. Physician and nurse should understand that the danger in eclampsia does not end with delivery or with the cessation of convulsions. The opposite view is held too often and an unfavorable outcome may depend upon a discontinuance at this period of the disease of careful supervision and active treatment.

If postpartum convulsions occur, we sometimes remove more blood from the circulation, being guided of course by the patient's

general condition. Lumbar puncture is advocated by certain authorities as an additional therapeutic measure. We employed this procedure upon five occasions; in four cases convulsions ceased following the removal of the spinal fluid (Chart IV); in the last case there was no appreciable effect.

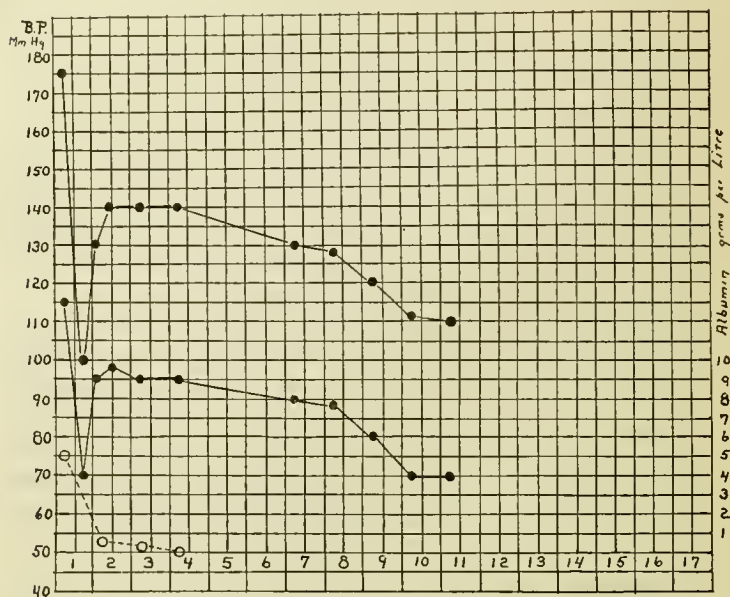


CHART V. Systolic and diastolic pressure in pre-eclamptic toxæmia. One kidney removed four years previously, myocardial insufficiency and orthopnoea. Delivery by abdominal Cæsarean Section under novocain. Fall in blood pressure and disappearance of albumin coincident with convalescence.

Several factors are of value in predicting the final outcome in cases of eclampsia with convulsions, namely, the output of urine, the quantity of albumin present, the activity of the sweat glands, and the blood pressure curve. If the kidneys begin functioning satisfactorily and the albumin decreases, we can be sure that there is no notable damage to the renal tissue. A moist skin is a

favorable sign as is also a decrease in the hypertension. In general, it may be said that cases of pre-eclamptic toxæmia and eclampsia accompanied by oedema offer a more favorable prognosis than those in which oedema is absent. For in oedematous patients a certain amount of the supposed toxin is said to be removed from the circulation and segregated in the fluid of the tissues.

Although we have emphasized the prophylactic and conservative method of treating pre-eclamptic toxæmia and eclampsia, we are prepared to admit that under certain circumstances a more radical procedure is indicated. For example, we have recently had the opportunity of studying a thirty-four year old primipara who was referred at term to the Clinic and who presented a myocardial insufficiency, orthopnœa and a hypertension of 175 mm. of mercury (Chart V). Four years previously a right nephrectomy had been done for renal tuberculosis. The present pregnancy had been uneventful up to the day of admission. Upon the latter date the patient suddenly developed symptoms of toxæmia and her physician discovered a notable elevation of the blood pressure and a large quantity of albumin in the urine. Examination in the Clinic confirmed the degree of hypertension. The albumin measured 5 grams per litre. Clearly, the woman's condition was grave, for pre-eclamptic toxæmia and eclampsia, always uncertain and dangerous diseases, become doubly so in the absence of one kidney. Since labor had not set in, and as the immediate termination of pregnancy was indicated, we chose as the method of delivery abdominal Cæsarean section under novocain. Following an infiltration of the line of incision with 20 ccs. of 2% solution of the anæsthetic the operation was accomplished successfully for mother and child. The degree of orthopnœa diminished as soon as the uterus was emptied, and the blood pressure fell rapidly to normal. On the fourth day postpartum the albumin had disappeared from the urine. Two weeks after operation mother and child were discharged from the hospital. At the present time, seven months after delivery, the blood pressure is normal and there is no evidence of renal insufficiency. Obviously, in this instance the use of conservative measures would have been unwise

and we are convinced that the radical procedure which we employed was the means of saving the lives of mother and child.

The salient points in the treatment of pregnancy toxæmias may be summarized as follows:

The careful supervision of women throughout pregnancy serves effectively as a protective against eclamptic convulsions. This supervision includes a determination of the kidney function as shown by the total twenty-four hour excretion of urine, analyses for the detection of albumin and the measurement of the blood pressure. Such examinations should be made monthly during the first half of pregnancy and twice a month during the second half of pregnancy.

A faint trace of albumin in a voided specimen is of little significance provided there are no other indications of toxæmia. On the other hand, the presence of one gram to the litre together with other signs of toxæmia indicates an impending eclampsia, while a continued daily output of 5 grams to the litre justifies interference irrespective of other symptoms. While patients with hypertension in the latter half of pregnancy may pass through labor normally, a systolic pressure of 150 mm. hg. is regarded as the earliest sign of pre-eclamptic toxæmia and treatment should begin immediately. If the pressure persistently exceeds 150 mm. active interference is indicated. Eclampsia with convulsions is occasionally accompanied by a systolic pressure of 130, but such a mild degree of hypertension is unusual.

Labor is induced by the use of a Wales bougie or a Voorhees bag. Further interference is rarely called for until the cervix is fully dilated. In the treatment of eclampsia most authorities now follow a conservative method. This includes bleeding, the stimulation of the excretory organs, the administration of copious quantities of fluid and the judicious use of morphia. Uterine contractions are inaugurated in most cases of eclampsia with the onset of convulsions. Therefore, operative interference is rarely called for until the cervix is fully dilated. The danger point in eclampsia is not passed with the emptying of the uterus or with the cessation of convulsions. Accordingly, careful supervision and active treatment should continue until the urine is free from albumin and the systolic pressure is normal.

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DISCUSSION.

DR. JAMES R. MILLER (Hartford): I am very glad that Dr. Morse brought up this question and treated it as he did. It has been said that it takes ten years to get anything new into general medical practice. About that many years ago I was in the clinics in Germany, fresh from medical school, and was astonished to see this method put into practice with better results than we had been getting in this country with more radical procedures. No one in this country has equalled the records of Stroganoff with only 6% mortality. I was interested in hearing Zweifel at the International Congress in Berlin report on 20 to 25 years of eclampsia treatment in this old clinic. In the early days where forceful dilatation with rapid delivery was used, he had a mortality of about 14%—then came the days of Duhresen's vaginal hysterotomy, when the mortality rose to 20%, in spite of more surgical treatment, the only difference being the avoidance of the tremendous hemorrhages from cervical tears. The last period using conservative treatment gave the best results. He disregarded immediate delivery, narcotics such as morphia and chloral hydrate were freely used, combined with copious venesection. The mortality during this period was under 8%. It can be said that conservative treatment of eclampsia has a distinct place in the sun and venesection is very much worth while.

I am particularly glad that this has been brought up, for recently I was called to see a case of threatened eclampsia and was asked, not what should be done, but when I proposed to do a Cæsarean operation. Patient had received no dietetic treatment and I was virtually forced into doing a Cæsarean operation against my will. Many doctors who carry their patients along under very careful observation never see a case of eclampsia. I have had only one case of convulsions in my own practice, and this occurred the day following the patient's return from her summer vacation, although symptoms had been present for two or three weeks. Eclampsia will, of course, sometimes occur, but if careful examinations are made, the doctor need not be afraid of being taken unawares. He can keep his patient from having convulsions. A complete history is essential in every case; the eye grounds should not be overlooked when there is a history suggestive of nephritis. Cases of nephritic type often show pigmentation or exudate of the retina. The treatment is not altered much, but finding a retinitis does not indicate a poor prognosis; and

if such a patient has a long continued high blood pressure, albumin and casts, she should not be allowed to have another child. Even here exceptions can occur, as in the case reported by Axenfeldt, where, in spite of the previous toxæmia with albuminuric retinitis, the patient was carried through a successful subsequent pregnancy.

DR. H. C. RUSS (Hartford): I have been interested in what was said in the paper about watching the urine and blood pressure. I remember when Dr. Morse and I were students together we heard much about the value of nitrogen partition studies, bearing on the question of toxæmia in pregnancy: that cases with high ammonia were more likely to have toxæmia than those with low content. We are now hearing very much about the nitrogen studies of the blood in conditions similar to those in nephritis; and I have recently read about the great value of the estimation of the uric acid content of the blood in pre-eclamptic conditions. I intended to ask Dr. Morse if he was interested in the study of nitrogen determinations in the blood, in connection with eclampsia; and particularly if he has noticed a value in the determination of the uric acid content of the blood as regards the probability of on-coming eclampsia.

DR. C. H. ELLIOT (Hartford): I would like to inquire regarding the symptomatology of those types of eclampsia that do not show high blood pressure or albuminuria, yet do come to convulsions. I looked up the autopsy reports of 4,000 cases reported by German writers and 15 to 20 per cent. showed no albuminuria previous to death or pathology of the kidney. There was no attempt to tell just what the symptoms were in these cases. The few cases that I have observed gave very distinct nervous symptoms, such as emotionalism, crying easily, sleeplessness that the patient could not account for. I believe these were the main points in the absence of other symptoms.

DR. MORSE (closing): Replying first to the question of Dr. Russ:—Two years ago we made a careful study of the blood in pregnancy and the toxæmias, and came to the conclusion that blood chemistry is of little value in determining the etiology of eclampsia. Nor is the determination of the various nitrogenous constituents of the urine helpful. Information regarding the total twenty-four hours output of urine and the quantity of albumin is, however, of importance.

I have had no experience with the type of case referred to by Dr. Elliot. We have seen several women in whom there was no albuminuria, but a moderate hypertension. Of course it is possible that there is a low grade toxæmia underlying the vomiting which occurs so frequently in the early months of pregnancy. So, in the cases which Dr. Elliot men-

tions there may have been a low grade toxæmia which was not indicated by hypertension or albuminuria. But I don't feel competent to say definitely, for I have not had any personal experience with similar instances.

I also saw the article to which Dr. Russ referred. We found no increase in the uric acid of the blood in eclampsia.

The measuring of the blood pressure is of value in determining the probability of a toxæmia in a subsequent pregnancy. If the pressure falls to normal within two weeks and the albumin clears up, the prognosis in the event of future gestation is favorable. On the other hand, if the hypertension continues and albumin persists at the end of four to six weeks, there is probably a permanent damage to the renal tissue which will give rise to trouble in a future pregnancy.

Renal Function Tests in Every-day Practice.

CHARLES W. GARDNER, M.D., Bridgeport.

Among the many methods of estimating the functional capacity of the kidneys, two lend themselves readily to the general practitioner. These two, the phthalein and renal diet, better named the concentration test, are not only the best suited for routine purposes but parallel in accuracy the more time-consuming and complicated methods. My object will be to show the application of these tests to the every day problems of diagnosis and prognosis.

Without question the phthalein is of diagnostic importance. But limitations must be considered in estimating its value. When determinations of function are made extrarenal factors which simulate renal disease must be kept in mind. In this list may be mentioned polycystic kidney, suppurative renal disease, hypertrophied prostate, myocardial insufficiency, and such conditions as anæmia and diabetes insipidus. The fact that the readings will change in the individual case make several tests imperative. This is well illustrated in the observations made in cardiac decompensation. Here the readings may be low only to resume a normal figure with improvement in the heart and the elimination of edema. The normal kidney should excrete 50% or over in the two hours. If no complication is present and the reading is persistently under 40%, renal disease should be suspected.

In following the progression of a case by repeated phthaleins information is afforded upon which to base a sound prognosis. Excluding polycystic kidney and suppurative renal lesions, no case has come to my notice giving a persistently low reading of 10% or under that has survived for more than a few months. In general the phthalein is considered the best single test.

The concentration test, also known as the Mosenthal, two-hour test or fixation test, originally a complex procedure, is now so simplified that it is readily available to all physicians. The test as

first used by Schlayer required that the food be weighed and that determinations be made of specific gravity, amount, nitrogen and chlorides. Mosenthal and others have shown that sufficiently valuable information may be obtained by using the patient's regular diet, noting the amount of the urine and its specific gravity in the two-hour day period and twelve-hour night period. The diet must include, however, 1500 to 1700 c.c. of fluid.

In order to have a reliable specimen the patient should be supplied with a complete labeled outfit. The following directions accompany the outfit :

1. Eat your regular diet; drink the following amounts of liquid with meals.

| | | |
|------------|-------------|---------------------|
| 8 o'clock | Breakfast | 2 glasses of fluids |
| 12 o'clock | Midday meal | 3 glasses of fluids |
| 5 o'clock | Supper | 2 glasses of fluids |

2. Be sure and do not eat or drink between meals, during the night or before you complete the test in the morning.
3. Do not waste urine in collecting. If the bottles are not large enough to hold the specimens, provide other bottles for the balance.
4. If urine is passed at other than the specified hours put it in extra bottles and label the time when passed.
5. At 8 A. M. void urine and throw away.
6. Eat breakfast.
7. 10 A. M. collect first specimen; place in bottle labeled 10 A. M. Throw none away. Use extra bottles if necessary.
8. 12 noon, collect as at 10 o'clock.
9. Eat midday meal.
10. 2 o'clock, collect urine as at 10 o'clock.
11. 4 o'clock, collect urine as at 10 o'clock.
12. 5 o'clock, eat evening meal.
13. 6 o'clock, collect urine as at 10 o'clock.
14. 8 o'clock, collect urine as at 10 o'clock.
15. 8-8 A. M., collect as one specimen.

After the 8 P. M. specimen is taken, collect all urine passed in one receptacle and put in bottles labeled night urine. This specimen includes the urine passed at 8 o'clock in the morning. Do not eat breakfast or drink anything before 8 A. M.

16. Note on the enclosed sheet any changes you were forced to make in carrying out the above directions.

| <i>Normal Reaction</i> | <i>Concentration Test</i> | |
|------------------------|---------------------------|----------------|
| <i>Time</i> | <i>C. C.</i> | <i>Sp. Gr.</i> |
| 10 | 155 | 1.016 |
| 12 | 158 | 17 |
| 2 | 190 | 14 |
| 4 | 260 | 12 |
| 6 | 114 | 20 |
| 8 | 240 | 10 |
| <hr/> | | |
| Total day | 1,117 | |
| Night 8-8 | 375 | 20 |
| <hr/> | | |
| Total 24 hrs. | 1,492 | |
| Intake | 1,760 | |
| <hr/> | | |
| Difference | 268 | |

Note that the day urine exceeds the night urine in amount. The normal kidney concentrates sometime during the day up to 1020 or higher. The night urine is not over 700 c.c. and usually not over 500 c.c., with a specific gravity of at least 1018. The variations in specific gravity from eight to ten points will be noted between the lowest and the highest. These are the essential features of a normal reaction. This test detects the earliest renal impairment.

But in the interpretation of this test the same limitations that were mentioned when speaking of the phthalein, namely the extra-renal factors that simulate renal disease, must be kept in mind. With these limitations it is safe to say that the two-hour test holds first place as a diagnostic agent.

The following case reports may serve to illustrate the application of the tests under consideration. These histories are brief; only the salient features are noted.

CASE OF CHRONIC NEPHRITIS WITH EDEMA.

Marjorie J.

Age 16.

Feb. 8, 1913

P. H. unimportant, no history of any infection.

P. I. acute nephritis with edema.

P. E. B. P. 126/90, urine, sp. gr. 1.016, alb. Lg. T., hy. and gran. casts, R. B. C.

| | |
|----------------|---|
| June 15, 1914 | B. P. 122/90, phth. 40%. |
| Oct. 22, 1915 | phth. 50%. |
| Oct. 31, 1917 | B. P. 130/90, phth. 50%. |
| Dec. 20, 1918 | B. P. 140/90, phth. 35%. |
| May 13, 1920 | B. P. 120/80, phth. 25%, gas, loss of appetite, weakness. |
| April 16, 1921 | B. P. 120/80, phth. 18%, gas, loss of appetite, weakness. |

Concentration Tests.

| April 7, 1918. | | | April 16, 1921. | | |
|----------------|-------------|---------------|-----------------|-------------|---------------|
| <i>Time</i> | <i>C.C.</i> | <i>Sp.Gr.</i> | <i>Time</i> | <i>C.C.</i> | <i>Sp.Gr.</i> |
| 10 | 120 | 1,011 | 10 | 150 | 1,011 |
| 12 | 90 | 11 | 12 | 125 | 11 |
| 2 | 60 | 13 | 2 | 150 | 10 |
| 4 | 60 | 14 | 4 | 120 | 10 |
| 6 | 60 | 14 | 6 | 125 | 11 |
| 8 | 90 | 14 | 8 | 135 | 11 |
| <hr/> | | | <hr/> | | |
| Total day | 480 | | Total day | 805 | |
| Night 8-8 | 660 | 11 | Night 8-8 | 750 | 10 |
| <hr/> | | | <hr/> | | |
| Total 24 hrs. | 1,140 | | Total 24 hrs. | 1,555 | |

Starting as an acute nephritis this patient has gone on with a persistent albuminuria for eight years. No essential change in the general condition of the patient has taken place. The skin has always shown pallor. Edema of the eyelids and legs has been present from time to time. Determinations of function first began in 1914. The first four years the phthalein has been normal. The last three the phthalein has steadily decreased. The fixation of gravity at a low level in the first concentration test gave a cue to the seriousness of her renal impairment. A further fixation, almost a maximum impairment, was revealed in the second test. While it is possible to go on with a fixation at this level for a long time, this fixation with a steady falling off of the dye is of grave concern.

Incidentally this case illustrates how comparatively benign and slow in their course some cases of renal disease are.

A MORE TYPICAL CASE OF CHRONIC NEPHRITIS WITH EDEMA.

Mrs. E. H.

Age 52.

Housewife.

Jan. 5, 1918 P. H. no history of any infection.

P. I. Sept., 1917, swelling of feet and eyelids.

Nov., 1917, in hospital.

delirious 48 hrs.

anuria 24 hrs.

for four weeks, headache.

for two weeks, nausea and vomiting, noct. 4.

P. E. skin pale, edema of face and extremities, P. M. I. 5th space.

B. P. 180/110, urine 1010, alb. Lg. T., casts, phth. 42%.

Feb. 3, 1918

B. P. 150/100, marked edema.

July 9, 1918

B. P. 200/120, urine 1017, alb. 2 plus, phth. 25%.

Concentration Tests.

| | Feb. 3, 1918. | | Feb. 27, 1918. | | Nov. 20, 1918. | |
|---------------|---------------|----------------|----------------|----------------|----------------|----------------|
| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
| 10 | 90 | 1011 | 140 | 1009 | 60 | 1015 |
| 12 | 50 | 20 | 100 | 14 | 45 | 12 |
| 2 | 120 | 11 | 110 | 13 | 40 | 15 |
| 4 | 80 | 15 | 105 | 15 | 40 | 18 |
| 6 | 50 | 25 | 180 | 11 | 40 | 15 |
| 8 | 135 | 10 | 210 | 11 | 30 | 16 |
| <hr/> | | | | | | |
| Total day | 525 | | 845 | | 255 | |
| Night 8-8 | 600 | 11 | 930 | 11 | 150 | 18 |
| <hr/> | | | | | | |
| Total 24 hrs. | 1125 | | 1775 | | 405 | |

The history and examination point definitely to a diagnosis of chronic nephritis with edema. She apparently had an acute uræmic outbreak in November 1917. Since that time, edema has been the outstanding feature in the case. The phthaleins have not been far from normal. However, if a phthalein had been taken later in the year it would have been considerably lower. The first concentration test was taken at a time when edema was moderate in amount and shows no striking deviation from normal. The second was done when edema was being eliminated and this fact is well shown in the test. The amount is large and the gravity rather low, resembling the picture seen in the dry type of nephritis. The last fixation was at a time when the edema had reaccumulated to a marked degree. This is shown by a fixation at a high level and a small output both in the day

and the night. Functional studies were not of value here. It is of interest that they for the most part show little evidence of impairment. The serous cavities filled and the patient died in December, about three weeks after the last observation.

CHRONIC NEPHRITIS WITHOUT EDEMA

| | | |
|---------------|---|-------------------|
| <i>Gus H.</i> | <i>Age 26.</i> | <i>Machinist.</i> |
| Oct. 8, 1917 | P. H. smallpox at ten. P. I. poor vision for 6 mo., leg cramps, headache 3 mo. P. E. double optic neuritis, skin, M.M. pale, hgb. 70% Talq. vessels thick, temporals tortuous, B. P. 260/170, Wass. neg., phth. 30%, urine 1008, alb. 2 plus, casts, no blood. | |
| Nov. 2, 1917 | B. P. 238/160, phth. 20%, working, same symptoms. | |
| Nov. 28, 1917 | B. P. 238/150, phth. 10%. | |
| Dec. 15, 1917 | unable to work, in bed most of time, headache, vomiting, epigastric pain. B. P. 240/150, phth. trace. | |
| Feb. 10, 1918 | died of uremia. | |

Concentration Test.

Nov. 2, 1917.

| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
|---------------|-------------|----------------|
| 10 | 160 | 1008 |
| 12 | 140 | 10 |
| 2 | 100 | 08 |
| 4 | 140 | 08 |
| 6 | 130 | 06 |
| 8 | 180 | 06 |
| <hr/> | | |
| Total day | 850 | |
| Night 8-8 | 1100 | 06 |
| <hr/> | | |
| Total 24 hrs. | 1950 | |

The clinical features of this case are so outspoken that the diagnosis is evident without the aid of functional studies. The blood pressure, urinary and ophthalmoscopic findings offer no criteria upon which to base a prognosis comparable with the tests. Patients showing the identical findings go on and live for a long time. In the concentration reaction November 2d, both the low

no impairment while in the preceding case a marked impairment was evident is the deciding feature in the diagnosis.

Although in a precarious condition on account of the liability to a cerebral vascular accident, the normal kidney function as determined by these tests permits if not a less serious a more accurate prognosis. Here we might well conceive the duration of life measured in years as compared with a duration of months for the preceding case. However, in this vascular disease sclerosis of the renal vessels may progress if life is sufficiently prolonged and definite renal impairment may take place.

ESSENTIAL HYPERTENSION.

| | | |
|-------------------|---|-------------------|
| <i>Mrs. B. F.</i> | <i>Age 64.</i> | <i>Housewife.</i> |
| Feb. 10, 1910 | P. H. no important illness, 2 children. | |
| | P. I. dizzy spells, slight dyspnœa. | |
| | P. E. pulse reg. 70, aortic 2d sharp, sl. cardiac enlargement, visible pulsation, suprasternal notch. | |
| | B. P. 240, urine 1018, S. P. T. alb., no casts, noct. 2. | |
| Jan. 14, 1913 | B. P. 240/120. | |
| June 3, 1914 | B. P. 220/110, phth. 55%. | |
| Oct. 18, 1915 | B. P. 220/110. | |
| Nov. 26, 1917 | B. P. 220/105. | |
| May 16, 1917 | B. P. 200/110, phth. 50%. | |
| Jan. 7, 1921 | dizziness, head noises, slight dyspnœa, slight dependent edema. | |
| | urine, alb. S. P. T., occ. hy cast. | |
| | B. P. 200/110, phth. 45%. | |

Concentration Tests.

| Nov. 26, 1917. | | | Jan. 7, 1921. | | |
|----------------|-------------|----------------|---------------|-------------|----------------|
| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
| 10 | 60 | 1020 | 10 | 70 | 1021 |
| 12 | 75 | 21 | 12 | 80 | 20 |
| 2 | 75 | 22 | 2 | 100 | 18 |
| 4 | 150 | 19 | 4 | 120 | 16 |
| 6 | 120 | 20 | 6 | 90 | 22 |
| 8 | 100 | 22 | 8 | 110 | 17 |
| <hr/> | | | <hr/> | | |
| Total day | 580 | | Total day | 570 | |
| Night 8-8 | 480 | 14 | Night 8-8 | 400 | 16 |
| <hr/> | | | <hr/> | | |
| Total 24 hrs. | 1060 | | Total 24 hrs. | 970 | |

These observations cover a period of eleven years. She was first seen at a time when most patients with this elevation of blood pressure were looked upon as having definite nephritis. In 1910 the blood pressure was 240. During the eleven years since that time it has been 200 or above. The first phthalein in 1914 gave a normal reading; the last, done recently, was 45%. Both concentration tests show a normal reaction. With these observations it is apparent that no impairment of renal function has ever been present. We are justified, therefore, in the assumption that this is a case of essential hypertension. The symptoms are readily explained if we consider that the long duration of the hypertension has produced sclerosis of the vessels, especially the cerebrals and coronaries. The small amount of albumen present is due to the renal sclerosis. The tests were of value in this instance in differentiating vascular hypertension from chronic nephritis. A less serious prognosis could be offered the patient than would otherwise have been possible.

ESSENTIAL HYPERTENSION RESULTING IN A CEREBRAL VASCULAR ACCIDENT.

Arthur R. C. Age 50. Paper Hanger. Referred by oculist.

Dec. 27, 1918 H. P. pneumonia at 30, tonsilitis 2 yrs. ago.

P. I. visual disturbances, slight dyspnoea, noct. 2, numbness of left hand few days duration.

P. E. retinal hemorrhages, exudate,
arteriosclerotic changes, K. J. normal
pulse reg. 80, B. P. 230/140, heart sixth space
Wass. neg., urine 1024, S. P. T. alb., rare cast.

Jan. 24, 1919 B. P. 230/130, phth. 50%.

Mar. 29, 1919 B. P. 220/140, phth. 45%, alb. trace.

Sept. 10, 1919 B. P. 210/120, phth. 50%, urine 1022, S. P. T. alb., occ. cast.

Concentration Test.

March 29, 1921.

| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
|-------------|-------------|----------------|
| 10 | 210 | 1010 |
| 12 | 300 | 12 |
| 2 | 85 | 25 |
| 4 | 120 | 20 |

| | | |
|---------------|------|----|
| 6 | 55 | 32 |
| 8 | 120 | 10 |
| <hr/> | | |
| Total day | 890 | |
| Night 8-8 | 375 | 27 |
| <hr/> | | |
| Total 24 hrs. | 1265 | |

A diagnosis of nephritis was made on this patient in December, 1917. Repeated phthaleins have always shown a normal result. The concentration test shows a high gravity, the night amount is normal and of high specific gravity. These findings are a sufficient guarantee that the kidney is normal as far as function is concerned. Determinations of function here were of diagnostic value. With the previous impression that the case was one of nephritis, the natural conclusion, when the man was found unconscious, was that he had uræmia. We could be quite certain, however, that with normal phthalein and fixation tests, uræmia might well be ruled out. The symptoms and general examination pointed quite definitely to the possibility of a cerebral vascular accident, which did occur October 14, 1919.

In passing, it may be said, that the phthalein will be found of distinct diagnostic service in the senile types of arteriosclerosis, the low blood pressure so called decrescent types. Not infrequently individuals who are seen unconscious and having convulsions are diagnosed as uræmic. The more especially is this true if the urine has albumen and casts. If such cases show 35% phthalein, uræmia may safely be excluded. The symptoms are better explained as being produced by the cerebral arteriosclerosis.

CASE PRESENTING SOME DIFFICULTIES IN DIAGNOSIS.

Mrs. M. G. *Age 47.* *Housewife.*

May 7, 1919 P. H. pneumonia at 34, one child 23, second pregnancy 10 yrs. later, phlebitis when 8 mo. pregnant, general edema during last part of last pregnancy.

"Kidney trouble since," H. B. P. several years.

P. I. incontinence and noct., aver. 5 times, dizziness.

P. E. eyes react, grounds normal, pulse reg. 88, heart fifth space.

B. P. 176/118, Wass. neg., urine 1012, V. S. T. alb., no casts.

June 10, 1919 B. P. 164/114, urine 1010, phth. 52%.

Jan. 15, 1920 B. P. 170/110, urine 1012, alb. S. P. T., rare cast.

June 18, 1920 B. P. 180 creatinine 1.6, urea N. 16, N. Prot. N. 26 phth. 55%.

Mar. 11, 1921 B. P. 170/105, phth. 50%.

Concentration Tests.

| | May 11, 1919. | | March 11, 1921. | | April 17, 1921. | |
|---------------|---------------|----------------|-----------------|----------------|-----------------|----------------|
| <i>Time.</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
| 10 | 90 | 1014 | 85 | 1008 | 100 | 1012 |
| 12 | 70 | 15 | 50 | 17 | 75 | 18 |
| 2 | 25 | 18 | 30 | 19 | 85 | 20 |
| 4 | 120 | 20 | 140 | 18 | 60 | 21 |
| 6 | 240 | 17 | 195 | 16 | 120 | 18 |
| 8 | 170 | 14 | 270 | 15 | 300 | 11 |
| <hr/> | | | | | | |
| Total day | 710 | | 770 | | 740 | |
| Night 8-8 | 1540 | 10 | 2100 | 11 | 1800 | 11 |
| <hr/> | | | | | | |
| Total 24 hrs. | 2250 | | 2870 | | 2540 | |

Is this nephritis? If so, has it continued since the pregnancy thirteen years ago? The history and physical examination reveal that the blood pressure has been elevated for years, albumen has been found, casual specimens have shown a low gravity and nocturia is present. All this sounds like nephritis. On the other hand, not often does a nephritis extend over so long a period and show as little impairment of function. Most cases of nephritis starting during pregnancy are of short duration, usually clearing up after delivery. The phthaleins gave normal readings. All the concentration tests show a flexibility with ten points variation in the specific gravity. The specific gravity is sufficiently high in the day specimen to stamp the kidney as normal. In chronic nephritis starting as such the two-hour test shows a fixation in the day as well as the night. A diagnosis of nephritis does not accord with these observations.

Nevertheless, decisive evidence that functional damage is present is to be noted in the night specimen, which is low in gravity and high in amount. It is of interest to note that there is a lagging of the secretion until late in the afternoon. Then the amount increases and at night a polyuria is noted. This means that the kidney is unable to accomplish sufficient work in the day and allow a period of rest at night. Consequently we may consider this patient as having primary hypertension with slightly impaired renal function.

We see, therefore, that not only have the determinations of function in this instance served to clarify the diagnosis and admit of a safe prognosis, but they have indicated the proper management of the case. With this impairment of function as denoted by the nocturnal polyuria, the kidney may be spared this increased effort by limiting the protein intake.

Emphasis should be placed upon the fact which is illustrated in this patient that single specimens of urine, if they are of low specific gravity, do not signify that the kidney has lost its ability to concentrate. A single specimen if high is one indication of normality.

The end result in most cases is either cerebral hemorrhage or cardiac failure. Rarely do they die of uræmia.

A CASE OF LONG STANDING ALBUMINURIA.

| | | |
|-----------------|--|-------------------|
| <i>Louis H.</i> | <i>Age 37.</i> | <i>Machinist.</i> |
| Jan. 14, 1907 | P. H. no illness. P. I. constipation, gas, no urinary symptoms. P. E. essentially negative, no edema urine 1028, S. T. alb. few hy. and finely gran. casts, few R. B. C. | |
| April, 1907 | urine 1027, alb. and sed., as before. | |
| Sept. 8, 1911 | B. P. 130/90, urine as before, no blood. | |
| May, 1913 | B. P. 140/80, phth. 40%, urine Lg. T. alb. | |
| May, 1914 | B. P. 160/110, phth. 45%, Wass. neg. | |
| April, 1918 | B. P. 170/110, phth. 45%, no complaint, came for exam. | |
| Mar. 15, 1921 | B. P. 160/120, phth. 55%, Lg. T. alb., no edema. | |

Concentration Tests.

| April, 1918. | | | March 15, 1921. | | |
|---------------|-------------|----------------|-----------------|-------------|----------------|
| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> | <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
| 10 | 120 | 1012 | 10 | 120 | 1010 |
| 12 | 90 | 20 | 12 | 100 | 13 |
| 2 | 110 | 14 | 2 | 90 | 18 |
| 4 | 80 | 21 | 4 | 85 | 20 |
| 6 | 90 | 20 | 6 | 120 | 18 |
| 8 | 120 | 16 | 8 | 90 | 21 |
| <hr/> | | | <hr/> | | |
| Total day | 610 | | Total day | 605 | |
| Night 8-8 | 550 | 15 | Night 8-8 | 725 | 13 |
| <hr/> | | | <hr/> | | |
| Total 24 hrs. | 1160 | | Total 24 hrs. | 1330 | |

At the time of the first observation, 1907, this patient was thought to have an acute nephritis. The clinical symptoms and urinary findings have changed but little during the fourteen years. The renal tests have been of importance in showing that the function is practically normal. The only feature at all suggestive is in the fixation tests. The specific gravity in the night specimen is rather low and there is a tendency to a nocturnal polyuria. It is of interest that in spite of the long duration of the albuminuria the inroad on the renal function is slight. The long duration and steadily increasing blood pressure would appear to indicate that this case is becoming one of contracted kidney.

POLYCYSTIC KIDNEY.

| | | |
|------------------|---|------------------|
| <i>Ernest H.</i> | <i>Age 44.</i> | <i>Salesman.</i> |
| Oct. 2, 1917 | P. H. no serious illness. | |
| | P. I. indigestion, cramps legs and arms at night noct. one, duration 2 mo. | |
| | P. E. eyes normal, vessels prominent | |
| | B. P. 166/110, heart fifth space, no definite enlargement | |
| Dec. 24, 1917 | kidneys large, hard, irregular headache, nausea, vomiting urine 1006, V. S. T. alb., few leuc., phth. trace | |
| | B. P. 166/124, urine as before | |
| Jan. 11, 1918 | B. P. 140/100, several convulsions, phth. trace | |
| May 20, 1918 | up around the house, urine as before, phth. trace | |
| Oct. 20, 1918 | died of uræmia | |

Concentration Tests.

Jan. 24, 1918.

| <i>Time</i> | <i>C.C.</i> | <i>Sp. Gr.</i> |
|---------------|-------------|----------------|
| 10 | 240 | 1010 |
| 12 | 120 | 10 |
| 2 | 100 | 11 |
| 4 | 420 | 10 |
| 6 | 240 | 12 |
| 8 | 240 | 11 |
| <hr/> | | |
| Total day | 1360 | |
| Night 8-8 | 1200 | 11 |
| <hr/> | | |
| Total 24 hrs. | 2560 | |

That other diseases may simulate renal disease is demonstrated here. The phthaleins at all observations are a trace. The concentration test reveals a fixation at a low level and a marked nocturnal polyuria. All of which testify to the fact that the kidney is working at its maximum capacity. In chronic nephritis these findings would make it necessary to offer a distinctly unfavorable outlook for the immediate future. In this condition, however, it is possible for patients to survive for some time. This man lived a year with the phthalein down to a trace.

The only other lesion known to me, with which the patient may live for a long time, is chronic suppurative renal disease. A case came under my observation that lived six years with a phthalein between 5% and a trace.

In concluding, these laboratory tests are not to be relied upon to the exclusion of other methods of examination, but rather they are to be welcomed as one important bit of evidence. The clinical history, physical examination with the blood pressure and urinary findings, continue to be as valuable in making a diagnosis of nephritis as in the past. If the practitioner will employ these two simple tests he will reap all the benefits of practical value to be derived from tests of function.

DISCUSSION.

DR. T. N. HEPBURN (Hartford): I have been very much interested in seeing these charts. They are very graphic and instructive. There is only one point to which I would like to refer,—the question of determining the relative nocturia: so many of these cases suffer from nervousness and insomnia that it complicates the picture. For it is difficult to determine how much the nocturia is the polyuria of nervousness. Otherwise, I entirely agree with the Doctor's observations. His method is a very simple and practical way of determining the kidney condition. His paper is so excellent that it deserves a much more thoughtful discussion than I am able to give it at so unexpected a notice.

DR. JOHN L. AMES (Boston): I enjoyed every bit of the demonstration, and the talk on renal function, and these two tests. In Boston, as everywhere else, the medical profession has been doing a lot of experimental work in determining the nitrogen in the blood in order to estimate what the kidney has been doing: Doctor Gardner has hit the nail on the head in showing the two tests that are practical, that any man with ordinary skill and intelligence can do. He demonstrated most beautifully the practical application of these tests. It is very well worth while to come down from Boston to listen to him and I wish to pay my respects to him.

DR. GARDNER (closing): In order to obtain reliable results both of these tests must be repeated. Never depend upon a single examination. In this manner the nervous element will be detected. A recent experience illustrates the necessity of repeating the tests. A nurse came to know the cause of her high blood pressure for which she had recently been refused insurance. The first two hour test gave a specific gravity nearly fixed at 1015 and a marked nocturnal polyuria. This looked like an early nephritis. Further observations, however, revealed the fact that when the test was properly performed she was able to concentrate up to 1030 and no nocturnal polyuria was noted. The phthaleins were always normal. Explicit directions should be given the patient when the concentration test is employed.

Duodenal Ulcer.

FACTORS DETERMINING ITS RATIONAL TREATMENT.

C. BREWSTER BRAINARD, M.D., Hartford.

Chronic duodenal ulcer has long been a fertile field for study. It is still a fertile field. As it is a serious condition of frequent occurrence it will remain in the limelight until such time as its etiology is more definitely known, its early diagnosis more promptly made and its rational treatment thoroughly understood.

Our ideas regarding it have changed much in the past few years, yet to-day we are of many minds; partly, at least, because we find it difficult to forget the old habit of treating ulcers empirically. These differences of opinion and the observation of cases cured medically after operation had been advised and refused afford the reasons for a discussion of the subject at this time.

Whether one accepts the focal infection of Rosenow or the nutritional-vitamine theory of Percy R. Howe, or the etiologic-therapeutic classification of Smithies, there is little question that duodenal ulcer can no longer be regarded as a disease in itself. We now look at it as only a part of the whole condition with which we have to deal. That is a long step in the right direction, for it at once demands that we study and treat the patient including his ulcer, instead of singling out the ulcer alone and then promptly deciding what to do for it. It is unscientific and begets poor results to treat these cases by rule of thumb. So in the light of our present day, yet limited, knowledge we look not only in, but also most carefully outside and beyond the duodenum and stomach for the disease that calls for treatment. This usually means an absolutely complete and careful study of the history, the physical, laboratory and Roentgen evidence. It commands our best efforts for it is not an easy task. Indeed the primary cause in the case in hand may remain undiscovered, but when it is diagnosed, how much better for the patient! We are no longer satisfied to treat constipation or jaundice as such, but in order to be fair to our patients and to ourselves we locate and treat the cause, yet

with due regard for the local conditions and their distressing symptoms. How well an uncomplicated ulcer heals, and without the development of a second ulcer, after the early removal of the primary cause when situated in an offending chronic appendicitis. On the other hand, if this appendix is overlooked there is no reason for surprise that the ulcer fails to heal but goes from bad to worse. Soon an appendectomy will avail little or nothing; it is too late, for the damage to the duodenum is too great to be benefited by any such method.

In like manner we fully deserve and will obtain a success that varies in direct proportion to our ability to discover early the exciting cause, whatever it may be, and to eradicate it without delay. Other foci of infection (as the sinuses, teeth or gall bladder), also syphilis, the habits, diet, endocrines, nervous and circulatory systems, the blood and other possible etiologic factors must not be omitted in the diligent search. This work is not at all suitable for the physician who is accustomed to seek first, and perhaps only, in the gastro-intestinal tract for the source of all digestive disturbances.

Therefore, since ulcers of the cap largely owe their inception to systemic conditions, it throws upon the family physician, who first sees the cases, the responsibility of not only being alert to suggestive and early signs of ulcer but also to conditions that may well be referred to as disease in the pre-ulcer stage. This means care and definiteness in every-day diagnosis and treatment, be it a case of focal infection or circulatory derangement or what not. I believe the varied and ill-understood etiology of ulcer makes it possible for the careful practitioner to often prescribe prophylactic ulcer treatment, and too, perhaps, without even realizing it. It is nothing novel to be urged to make correct diagnoses and make them early in this or any other disease process, but if we are to obtain the best results possible for these patients and spare them from years of annoyance, expense and suffering, we must start right and promptly, while there is yet the chance of an actual cure. This is worthy of emphasis because we are to-day better enabled to fulfil this trust. Our patients are rapidly learning to expect more than a superficial incomplete study of

their complaints, and more than symptomatic treatment. We certainly owe them logical opinions arrived at by honest work. While the history and the various examinations are all so important that none may be safely omitted, it is only by coördinating them that our opinions rest on a sound basis. In order to be sure that an ulcer exists absolutely every suspicious case should have a Roentgen examination, the evidence of which, like other findings when taken alone, may mean little or nothing, but when given its proper place in the routine diagnostic régime it constitutes a most important part of it. If the presence of an ulcer can be positively decided without the aid of Roentgen evidence it is excellent proof of an unnecessarily postponed diagnosis. I say it advisedly, as I have committed this error myself, and the lesson thus learned has not been forgotten. The history, the physical and chemical examinations alone are not sufficient for an early decision as to the presence or absence of ulcer. Smithies subjected to thorough clinical study several hundred patients that had been sent to him with a diagnosis of ulcer because of their gastric ailments, and he found in an analysis of those in which the Roentgen examination had been omitted that only 53% actually had an ulcer. "The remaining 47% were affected with lesions of the gall bladder, appendicitis, simple gastritis, carcinoma, syphilis, cardiorenal upsets, tuberculosis, alcoholism, occupational intoxications or vagotonia."

The diagnosis having been made, there is frequently a too prompt or "ready-to-serve" opinion offered as to the treatment. We have been prone to at once classify ulcers as medical or surgical and then rest content with having done what we called our duty. Far from it! As these ulcers differ in their etiology and their pathology, so must their treatment differ if it is to be successful. It is results that count. It should not be necessary to remind ourselves that each case with an ulcer is a law unto itself, nor to recall that, as White has said, "there is no such thing as *the* ulcer treatment." Aside from malignancy, which is rare, acute perforation is the only indication for immediate operation. In all other ulcers there is sufficient time to thoroughly study the etiological and pathological factors and any concurrent disease

in order to formulate a common sense procedure. As Smithies has so well pointed out, the etiology must receive pains-taking attention and direct etiologic-therapeutic treatment instituted if possible. Furthermore, he adds, "local treatment of such anomaly can give promise of permanent success only when coördinated with therapeutic measures tending to restore to normal the systemic disturbance of which ulcer is but a part."

Therefore, the first problem in treatment is a consideration of the primary cause. What is it? How long has it existed? Is it still a factor; and if so, can it be eliminated? The second problem, often no less difficult, is a study of the pathological factors that determine what shall be done locally. We note not only the position, character and size of the ulcer, but also its complications and reflex effects.

We are now, but not *until* now, ready to discuss the old question of medical or surgical treatment of practically all post-pyloric ulcers except those with acute perforation, as noted above. We know that shallow ulcers with a good blood supply may heal without any treatment at all, but what is more to the point is the fact that the earlier the patient receives proper management, the better are the chances of a real cure.

Ulcer of the cap is primarily a medical disease but it does not always remain so. Einhorn says "an ulcer in itself, is not an indication for operation," and Friendenwald states without qualification that "simple uncomplicated ulcers do not require operation." It was with those thoughts in mind, no doubt, that White remarked that "medical treatment properly used, with the new and more exact methods we now have for diagnosis and observation, will cure more chronic ulcers than surgery, not necessarily because it is better but because it is always used first. Surgical treatment begins where proper medical treatment leaves off." The task calls for keen judgment in the weighing of any and all evidence presented. In a given case which was in its inception medical, in so far as local pathology is concerned, how is the physician to satisfy himself that it is still medical or that it has passed beyond and into the surgical class? If the pathological process has not yet extended so as to produce by cicatricial

contraction or by periduodenitis an organic stenosis that seriously disturbs motility, and if no chronic perforation or periduodenal abscess exists the case is still medical until proven otherwise by the results of such treatment. This is determined by re-examinations, the results of which are weighed with the subjective symptoms at intervals and over a period of time suited to the individual case.

Prolongation of the emptying time of the stomach is a feature, the importance of which cannot be over-estimated from the treatment viewpoint, because undue delay is "the most important factor which retards the healing of the ulcer" (White). Here is the rock on which the internist and the surgeon so often split, for there are different kinds and degrees of obstruction which cause the retention residue. We must, therefore, determine the type of obstruction. If it is due to oedema or reflex spasm or to both it should receive medical management under watchful supervision, but if the obstruction is sufficient to cause a marked gastric residue and is caused by a permanent organic tissue-narrowing, which, according to W. J. Mayo, occurs in 10% of the delayed emptying cases, operation is indicated at once.

Severe types of spastic contraction with their train of distressing symptoms and nutritional problems may also fail to respond to anything short of the knife. Acute hemorrhage rarely occurs more than once or twice, is seldom fatal and should not be subjected to operation, while the later treatment depends on other factors. Recurrent or chronic bleeding cases belong, with the obstructive ones, in the border line group and may receive conservative treatment for a limited time only.

Having reviewed all the evidence thus far obtained we have yet to judge the personal factors involved before our final decision can be made. The patient who either can not or will not heartily coöperate with his physician in the medical management of his case should not be urged to attempt it, for under such circumstances an operation offers him more.

And, finally, we are receiving an ever increasing number of reports of the end-results of treatment that should profoundly impress us with the fact that one of the most vital factors in

obtaining satisfactory results lies in the zeal and thoroughness that we employ in following our patients after the cure is supposed to have been effected. This applies equally well to those restored by either medical or surgical means. They all need supervision as much as they require further advice which is based on the evidence derived from re-examinations. By the latter we are enabled to detect and follow both local and referred changes for the better or worse and thus re-direct the treatment according to whatever the conditions may then demand. These are the last, but not least, of the factors that determine the rational treatment of chronic duodenal ulcer.

SUMMARY.

1. Post-pyloric ulcer should not be regarded a disease in itself but as an incident in the systemic condition.
2. The etiology is varied and often obscure.
3. Early diagnosis and prompt treatment of the primary cause as well as of the ulcer are essential to a successful termination.
4. End-results are liable to be disastrous if the case is not diligently followed after the cure has apparently been obtained.
5. Each case is a law unto itself; and from first to last the patient, and not his ulcer, should occupy the center of the stage.

DISCUSSION.

LOUIS M. GOMPERTZ, M.D. (New Haven): In this most interesting paper which Dr. Brainard has presented to us, I would like to mention particularly a few points which seem to me important factors in determining a rational therapy for duodenal ulcer.

Since the use of the X-ray has become prominent as a diagnostic measure, the laboratory, physical examination and last but not least, the history of a given case seem to have been relegated to the background. One of the main procedures in determining rational therapy for duodenal ulcer is a painstaking and careful history, which has lost none of its importance since the other means of diagnosis have come into use.

Dr. Brainard has pointed out that the patient and not his ulcer should occupy the center of the stage. I believe the patient should be treated as well as the ulcer, but it seems to me, a rational and successful treatment of this condition may be expected when we are able to find and eliminate the

causative factors. Until we know absolutely what causes duodenal ulcer, we must necessarily continue our treatment along empirical lines.

After the diagnosis is established, before deciding whether medical, surgical or whatever treatment should be instituted, it is of the utmost importance that an examination of the blood by the Wassermann test should be made. I would like to lay particular emphasis on this suggestion, as it has been our experience that a number of cases of long standing ulcers have been cured by the use of specific remedies after a positive Wassermann had been discovered. Clinical experience has proven that syphilis should be considered in the therapy of this condition. Rational treatment should also depend upon the duration and type of ulcer under consideration. These may be classified as the acute, sub-acute and chronic.

As Dr. Brainard has said, the acute ulcer with hemorrhage and without perforation should be treated medically. The sub-acute ulcer, generally indicated by its history to be of short duration, may also respond to dietetic and medicinal treatment. The chronic indurated ulcer is that form which has extended over a long period of time and may be differentiated from the other forms, by its persistent, progressive character, as well as by its resistance to all medicinal measures. It must be apparent that the attempt to define sharply these forms of ulcer is often extremely difficult and taxes to the utmost the resources of the clinician; but the endeavor should be persisted in, with a view to ascertain the stage of the ulcer or its period of duration, so that we may be better able to decide upon a rational treatment. In the case of the chronic indurated ulcer, with evidence of disturbed motility, it is my belief that treatment by drugs and diet is of no avail and they should be referred to the surgeon for operative treatment.

I am in hearty accord with the belief that the cause or causes of this condition should be ascertained, if possible, before beginning treatment, but until they are known we must be content with the empirical treatment of duodenal ulcer.

ALFRED M. ROWLEY, M.D. (Hartford): When Dr. Brainard asked me to discuss his paper he said that he did not wish me to be easy with him, if, surgically, I disagreed with his medical views. I thanked him and told him that I would not, but having read his paper, I find I heartily agree with him in most points. Dr. Brainard has limited his paper to duodenal ulcers, and our views, as regards treatment, might vary more if we were discussing the gastric pre-pyloric ulcer, which most surgeons and pathologists agree is often the forerunner of cancer, a condition seldom found distal to the pylorus, and consequently the physician and patient need not consider this possibility as a termination of the disease.

I think that one, if not the most important point, brought out in the Doctor's paper is that of prophylactic ulcer treatment. Although Dr. Brainard

has not committed himself to any one etiological School, I think he refers not only to the correction of bad business, social and personal habits, after the taking of a medical inventory, but to the removal of focal infection which may be present.

The more one observes the ulcer cases, the more one is given to believe in the infectious theory, and this certainly is borne out in animal experimentation. It is difficult to prevent the healing of a traumatic ulcer, but not difficult to produce one by bacterial injection in the blood stream, and I believe here the dictum holds good: Remove the primary focus of infection and the metastatic foci will take care of themselves; this, of course, with the proviso, that they have not existed for too long a time and produced too great structural changes.

The majority of surgeons are quite in accord in their belief that early cases should have a thorough medical treatment before considering any surgical procedure, and a great majority of patients that come into the surgeons' hands have been treated medically over a considerable period of years. They have been benefited for a time and are quite free from indigestion symptoms; later, have a recurrence of their trouble, usually after an interval of one to two months, are again benefited and again relapse. They go through such cycles until they are thoroughly tired of their existence or incapacitated in their work, developing oftentimes secondary anemias from prolonged or slow hemorrhage, or have an acute or chronic leak. These are the cases for the most part the surgeon is seeing.

All symptoms which are referable to the peptic ulcer, and even the laboratory findings of the stomach analysis, may be produced by other conditions than ulcer itself. The X-ray today offers us the most positive method of diagnosing ulcers, and in competent hands, should give us a positive diagnosis in over 95% of the cases. It is of equal importance to verify the cure by Roentgen examination as it is to make the diagnosis.

The question then arises: When is an ulcer surgical and when is an ulcer medical? As Dr. Brainard states in his paper, we all agree that it is surgical when there has been a leak, also when there is a stomach stasis due to organic contraction at the pylorus.

I think we must include in this classification other patients who are thoroughly sick of having the morbidity of indigestion and know that they cannot eat without having pain or have to eat to relieve pain. When this condition recurs at frequent intervals, even under dietetic measures, frequent feedings and alkalis, they demand something to be done, and I believe here surgery offers the best hope. Also we must include the individual who cannot afford either the time or money to take a prolonged treatment of rest and diet, and must be cured quickly.

The mortality statistics as gathered at the Rochester Clinic by the actuary of a large insurance company, show that those patients who have had

duodenal ulcers as proven on the operating table, and subsequent gastroenterostomies, have a lower mortality than that expected in the normal individual.

Surgical excision of the ulcer, combined with a gastroenterostomy gives, in a majority of cases, a complete and permanent cure. It removes the lesion and prevents a recurrence by lowering the hyperchlorhydria and total acids through neutralization, by the duodenal alkaline secretion.

DR. BRAINARD (closing): In the matter of diagnosis we will reach wrong conclusions in a large proportion of cases if the value of the history is over-emphasized. I believe in a good history and for that reason always spend a great deal of time in obtaining it in every case, but my experience has been that an excellent history may lead me far astray, for the gall bladder and the appendix often produce a history similar to that of ulcer. In fact, I work in the belief that there is no such thing as a definite ulcer history. To obtain correct diagnoses in a large percentage of cases it is necessary to carefully weigh the history, the physical examinations, the laboratory and Roentgen findings and then be ready to repeat any or all of them as occasion may require. Ordinarily incomplete histories and examinations are of no value for they lead to wrong conclusions.

This is well illustrated by the following notes of a case which came under my observation five months ago. As the patient's time was limited owing to the fact that he had to leave town, I tried to reach an understanding of his case through an incomplete study in the short time at my disposal. The opinion that I then formed has been rudely shaken by the subsequent course of the case.

Mr. B., age 33, married, insurance business, gave a so-called ulcer history covering the last seven years. Attacks were becoming more frequent, more severe and lasting longer. Vomiting was for the first time a symptom in this attack which had lasted three weeks. Physical examination negative except for tenderness in upper right epigastrium. Fluoroscopically the stomach was negative but the cap showed a definite filling defect with tenderness at this point. At the end of six hours there was a large residue of the barium meal in the stomach. This residue was present but progressively smaller at the end of 24, 30 and even 50 hours. At the last examination it was estimated to be an ounce. A 12 hour gastric residue due to pylorospasm is not a frequent finding and we certainly do not expect to see a residue due to spasm at the end of 50 hours. Aspiration of the stomach contents 11 hours after a motor meal and 1 hour after an Ewald gave a return of 180 c.c. of hypersecretion type, with a residue of the motor meal, a positive Benzidin test for occult blood, normal acid figures and negative to lactic acid.

On these incomplected findings I thought that a duodenal ulcer with an organic stenosis was present and that an early operation would probably

be needed. There was no evidence of disease of the biliary tract or appendix. The advisability of further study was explained to the patient and he was urged to remain in town for that purpose, but he insisted on his trip to the West so he was given a modified ulcer treatment. Numerous reports from him, including one of a few days ago, show that he has been entirely free from pain and vomiting and with only an occasional stomach symptom of any kind.

Certainly the results of this case have been very different from those that I had anticipated, and it well illustrates the ease with which wrong opinions may be formed and unsuitable advice given as a result of insufficient diagnostic work.

Hemorrhagic Osteomyelitis.

ERNST H. ARNOLD, M.D., New Haven.

Several reasons prompt me to bring to your attention the above subject at the present time. Hemorrhagic osteomyelitis is apt to exist without symptoms subjective or objective and may go, therefore, unrecognized. Fracture without what would be to a healthy bone sufficient provocation may take place. A bone having thus been broken and hemorrhagic osteomyelitis yet not recognized as the remote causative agent, delayed or nonunion may result.

If the lesion be situated near a joint which from the predilection of the lesion for spongy bone is likely to be the case, it may be mistaken for a joint lesion such as tuberculosis. Conservative treatment for the latter, braces for instance, have no influence on hemorrhagic osteomyelitis, whereas prompt surgical interference would speedily reconstitute the part at integrum. With the former the patient would face a long drawn out and inefficient course of treatment.

Finally hemorrhagic osteomyelitis may be mistaken for a malignant bone lesion and drastic and mutilating surgical measures taken which would be altogether unnecessary.

In view of these reasons a recital of the nature and behaviour of this condition together with the relation of a few illustrative cases may not be out of place.

ETIOLOGY.

The condition is not very frequent. This infrequency is in part undoubtedly due to the fact that the lesion exists often unrecognized and undiagnosed. Its preference for spongy bone explains its occurrence in childhood and youth. I myself have not come across a case older than twenty-five years. The pathology being that of a process of repair, the injury to the tissue calling for repair must in the absence of infection be traumatic. That seems to be the case history as the history of trauma is frequently given.

PATHOLOGY.

The gross pathology of the lesion usually presents a cavity in the spongy part of a long bone. When the formation of this cavity has progressed for some time it consists of one chamber of very regular, often oval outline. If bone absorption has not yet advanced much, the unabsorbed trabeculae may subdivide this chamber in several compartments. The cavity is found filled with a dark brownish mass of jelly-like consistency from which uncoagulated blood oozes. A membrane brownish red in appearance, fairly thick one eighth inch and more and which is very friable, lines the cavity. The cavity expands driving the cortica before it, but unless there be spontaneous fracture rarely ruptures through it. The lesion is noticed then as a swelling of regular shape and smooth surface. There are no signs of inflammation, no reddening, no heat till the pressure from underneath causes the skin reaction to show these signs. Microscopically the mass is found to be a hemorrhagic extravasation in which light colored areas consisting of young fibroblastic tissue are noticed. In these are found many multinucleated giant cells of the foreign body type of cell. They are derived from the fusion of leukocytes proliferated from vascular endothelium. The giant cell formation is due to the presence of much hemorrhagic granular tissue. It is also favored by the necrosis in the extravasated areas. The tissue necrosis is likewise responsible for the appearance of fat globules in and around the endothelium cells. Numerous fibroblasts are seen forming collagen fibrils. Where the process becomes chronic this collagen formation is well marked, proceeding to fibrous contraction and cyst formation. This cyst formation and the presence of giant cells were undoubtedly responsible for the view held in many quarters until quite recently, that the condition was one of tumor formation, bone cysts of this variety being classed as giant cell sarcoma. It is now, however, recognized that the process is one of a low grade inflammation usually chronic in character in response to trauma. The giant cells have not a tumor forming but as Barrie, who has done a great deal of excellent work on this condition puts it, scavenger function.

SYMPTOMS.

There may not be any subjective symptoms. Pain is present only when the expansion has gone far enough to make the cortical support of ligament or muscle attachment insufficient. We have then pain on joint movement in the first, or muscle contraction in the latter case. Likewise may there be absence of objective symptoms and the condition is only accidentally revealed either when X-rays are employed for other conditions in the neighborhood of the lesion or by the fracture of the bone. With the expansion, however, of the lesion we have a distinct enlargement of the bone. Usually there is neither heat or redness to be noted. Only when the pressure from below becomes keen do these set in. There may be enlarged superficial veins over the swelling due to pressure interference with the venous circulation. In the lower extremity limping may be associated with the condition. The condition being strictly a local one, no general symptoms such as fever, anemia or loss of weight need be looked for. Atrophy of the soft parts in the neighborhood is absent in the beginning and not particularly marked in the advanced states. If the lesion is very near the joint there is some limitation of movement but passive movement within the limitation is painless. Protective muscle spasms are absent or only slightly marked.

DIAGNOSIS.

The youth of the patient, the location in spongy bone, the history of trauma, the absence of marked pain, limitation of movement and muscle spasm, the long duration without exacerbations or metastasis make the diagnosis likely. The X-ray findings are sufficiently characteristic to confirm the tentative clinical diagnosis.

The X-ray shows a cavity usually very regular in shape, sharply outlined. The cavity shows no bone proliferation. The cortica, unless broken by violence, is intact. If broken no bony tumor mass is shown outside the cortica.

The differential diagnosis is important in regard to malignant bone tumor (sarcoma) and bone tuberculosis. Hemorrhagic osteomyelitis has the age of the patient in common with both.

The location is the same in tuberculosis and may be the same in sarcoma.

The history of trauma may be had in all three. The presence of early and great pain distinguishes tuberculosis and sarcoma from it. Limitation of movement is an early and constant symptom of tuberculosis; it is marked in sarcoma near joints. Muscle spasms are marked and constant in tuberculosis and sarcoma near the joint. The local swelling of tuberculosis is diffuse and involves the soft parts. In sarcoma it may be circumscribed but is irregular. The tubercular joint is hot. Sarcoma and hemorrhagic osteomyelitis only show redness and heat when the skin becomes involved. Tuberculosis and sarcoma are progressive; hemorrhagic osteomyelitis may be stationary for years.

Atrophy of soft parts adjacent above and below the lesion is present in tuberculosis and sarcoma. It is absent in hemorrhagic osteomyelitis except where long disuse has brought it about. No fever or general marasmus is noticed in hemorrhagic osteomyelitis. The X-ray usually clinches the matter. Tuberculosis presents no cavity, sarcoma not one of such regular shape and smooth outline. Sarcoma involves the cortica, breaks through it and usually shows bony mass outside of it.

TREATMENT.

A sufficient opening through the cortica to allow the complete curettage of the hemorrhagic membrane and of the whole cavity and recesses if there be such. If the cavity is large, filling it with bone chips taken from adjacent healthy cortica is helpful. Suture of periosteum and skin. No drainage. No use of tissue destroying swabbing such as carbolic acid. No bone wax filling. Perhaps a mildly stimulating application of dilute tincture of iodine may be had. If the cavity be large and the cortica thin some protecting splint must be worn even in the upper extremity. In the lower extremity a protecting and supporting brace is indispensable till the X-ray shows sufficient bone deposit in the cavity to prevent untoward accidents. The X-ray taken at fairly frequent intervals (six to eight weeks) will control the recovery and indicate when protection may be done away with. The prognosis is uniformly good.



CASE I.



CASE I.



CASE 2.



CASE 3.



CASE 3.



CASE 4.

HISTORY OF ILLUSTRATIVE CASES.

Case 1. Dates back to January, 1909 and is my earliest acquaintance with the condition. The patient, male, 10 years, in poor health and flesh, injured left upper arm several days ago. The injury was held to be a fracture by the attending physician. On examination a distinct lump was felt between the middle and upper third of humerus. This was thought to be due to over-riding of fragments. The personal history related several injuries to the same arm previous to the present one; the last one about ten months ago. They were not, however, held to be fractures at the time. The X-ray revealed the lump to be an atrophic bone lesion, oval in shape and evidently cystic in nature, involving the medulla of the humerus. The appearance suggested a neoplasm which the history of the repeated injuries made likely. Exploratory operation was advised and done same month, the plan being to be prepared to amputate should the gross appearance and fresh section examination show malignancy beyond doubt. At operation a cavity was found containing a blood-like mass and a hemorrhagic membrane. Specimens of these and bone chips from the wall of the cavity were taken for examination. There being no distinct sign of neoplasm the wound was closed after curettage and the arm splinted. The pathologic findings of Dr. Bartlett revealed no sign of malignant tumor formation but suggested a low grade chronic inflammation. A slow but apparently complete recovery took place. However, the arm was broken again, with little provocation, in the same place in October of the same year. It was treated by splinting, after union for some time by stimulating treatment such as heat and massage. The patient is well to-day, the arm has completely recovered and no further difficulties with it have been experienced.

Case 2. Connects the lesion directly with injury. Patient, female, 24 years, seen January 1920. In September 1919 she fell, striking the front of the tibia below the knee on the edge of a trolley rail. The bruise promptly healed but sometime after a swelling was noticed at the side of the former injury. At the time of the first examination this swelling was about the size of a

hen's egg, smooth to touch. The skin over it showed some pressure signs. The X-ray presented a cystic cavity with several compartments. The diagnosis of osteomyelitis hemorrhagica was made, and operation done. The cavity was filled with a gelatinous mass and lined by a hemorrhagic membrane. It was curetted and closed. A protective brace was worn for six months, a complete recovery was made, the patient is well and about.

Case 3. Seen June, 1920, has also the history of trauma but whether the osteomyelitis found at the time of the first X-ray examination was cause or effect of the injury cannot be told. Patient male, five years, fell, breaking leg, June 1919. Since then the patient has been seen by quite a number of practitioners. He wears a protective brace but he limps with and without it considerably. The tibia is bent to an angle of one hundred and fifty degrees and there is a false point of motion. The X-ray shows an ununited fracture and bone cysts in the proximal fragment. The diagnosis: ununited fracture in presence of osteomyelitis hemorrhagica. At operation the lower fragment has its edges freshened. The upper fragment is found to have a cavity containing a bloody mass and a hemorrhagic membrane. This is curetted out. Apposition of fragments without suture, cast applied for six weeks, bony union promptly followed. A protective brace was worn, the patient is well and about and the union firm.

Case 4. Illustrative of the possibility of lesion being mistaken for a tubercular joint. Patient, female, six years, in fair health and flesh, has been lame in left leg for upward of six months. There has been occasional pain but not severe. There is no atrophy of the muscles of thigh or gluteofemoral region, only rotation in hip is limited. The X-ray shows a large cystic area involving the region in the neck, trochanter and upper part of shaft. Diagnosis of osteomyelitis hemorrhagica was made. This diagnosis is confirmed by operation, the lesion being entered through the trochanter. A large cavity filled with a bloody mass and lined by a hemorrhagic membrane is exposed. Curettage was done. A supporting brace is worn and should be worn for some

time for fear of fracture through the very thin bony shell remaining after curettage. The operation is followed by the cessation of pain and the limitation of movement. The lesion is filling in. The patient is well and about though still, for above cited reason, on a supporting brace.

DISCUSSION.

DR. E. A. CODMAN (Boston): I am very much interested in this subject, but cannot add anything to the paper. This presentation of the subject has been excellent. I was inquiring whether the reader had been a teacher, for it is so well done that I am sure he has been a teacher of students. He did not confuse us with the other words which have been applied to this disease; he called the condition hemorrhagic osteomyelitis. It is also called osteitis fibrosa by many and bone cyst, and it is on the border line of the giant cell tumor, about which Bloodgood and Barrie have written so much. The important thing is to distinguish these lesions from malignant tumors for undoubtedly many such cases are being amputated for sarcoma.

I have been interested in what we call the Registry of Bone Sarcoma, in which we register cases of bone sarcoma as we would register a pedigreed animal, so that the case will be definitely on record, if it is cured by radium, Coley's serum, amputation or by any other method. Dr. Bloodgood of Baltimore, Dr. Ewing of New York, and myself are trying to do this, and if you have any such cases we hope you will register them with us and supply us with a bit of the tissue.

It is extremely important to spread what the reader has said about these cases of hemorrhagic osteomyelitis over the country, for undoubtedly such cases are being observed and having excisions or amputations done, when they are quite curable by the means he has adopted, and others. No doubt radium therapy and crushing the bone so as to drive the outer part into the center of the cyst will cure them. Probably the best and safest way is as Dr. Arnold has done.

You have in Hartford one of the few cases of true sarcoma, reported by Wells, some ten years ago. I have been able to find less than a dozen cases of true bone sarcoma now living after a period of five years. When we have looked at the specimens which have been sent to us many have proved to be this hemorrhagic osteomyelitis which Dr. Arnold has described.

DR. ARNOLD (closing): I will confess to being a teacher; it is one of my side lines and has been my profession. The importance lies just where Dr. Codman said,—in preventing the mistaken diagnosis of malignancy. I know of some cases where amputation has been done for this con-

dition, and where a better knowledge of the condition would have prevented it. The recognition of it, though, may not be as easy as I represent it, but it is possible to make a differential diagnosis by the behavior of the conditions that come in for consideration. As to name I especially like to call a condition by a name which describes it; I think that osteomyelitis and hemorrhagica defines it; osteofibrosis does not describe it exactly. It describes a rather later stage of it. After cutting into quite a number I have been struck by the hemorrhagic nature of the condition. They all stop bleeding after the membrane is removed.

Some Aspects of Lues in its Relation to the Psychoses and Psycho Neuroses.

FRANK H. BARNES, M.D., Stamford.

Continuous observation of various patients for a period of several years has only added in my experience to the suggestion of noted neuro psychiatrists that lues in itself is an entity and must be treated as such. Whether syphilis is associated with a disease either functional or organic, it should not escape the physician's notice. It must be treated as syphilis regardless of complications or added syndrome. No matter whether associated with symptoms of a psycho neurosis or those of a psychosis it must be attacked by vigorous anti-syphilitic treatment. Many cases of lues have been recognized only too late for curative treatment. Patients suffering from syphilis where the initial symptom has been none too manifest, and having no secondary symptoms, have rested in fancied security with the idea that theirs was a very mild type of the disease and that their apparent good health would see them through. Many such individuals have married and had progeny, all apparently healthy and strong. They have lived for years with the idea that their cure was absolute. Suddenly in the cloak of a psychosis or psycho neurosis the lues acquired many years ago again manifests itself and they are again subjects for active treatment. If neglected, this condition will land them in some neurological clinic or institution for the insane without hope of future cure or very little chance for successful treatment.

In citing a few cases that have come under my observation it is not my purpose to relate all the neurological findings in each individual nor to give all the seriological or chemical data. Am relating some of the most marked symptoms present in each case. My point is to emphasize the necessity of early discovery of lues, especially in those cases whose symptoms so many times are those of a neurasthenia or one of the psycho neuroses as well as mildly depressed types of mental disease.

The case of a lawyer, Mr. G, age forty-five, prominent member of the bar in a large southern city, illustrates the fact that syphilis is many times latent in the individual and not recognized until beyond the reach of our latest methods of intensive treatment. He came to me for treatment during November 1919. For several months had shown marked neurasthenic symptoms; was easily tired on slight exertion, complained of vague pains in the head, suffered from loss of ambition and was very irritable. His memory was not up to its former standard. He became forgetful, irritable and easily angered. Finally during the winter of 1918-19 he went to his old home for a few weeks rest but felt no better. Was then sent to Florida to get the benefit of a warmer climate, but he still had all his vague symptoms. During his stay in Florida he had dizzy spells, as he termed them, and could not keep his balance,—had a tendency toward falling. During April 1919 he had a cerebral hemorrhage with subsequent left hemiplegia. Later, during November he came to me for treatment and shortly after my first examination a Wassermann blood test was made which showed a four plus positive reaction. Spinal puncture was done and showed a positive Wassermann reaction of spinal fluid. For over a year he had suffered from neurasthenic symptoms but his syphilis was not discovered until he had the cerebral hemorrhage above related.

Another case comes to mind of a Mr. N., whom I first saw April 28th, 1919. He was forty-four years of age, a farmer by occupation. Family history negative. The man had been a tireless worker and had for years worked beyond his strength. He was very ambitious and had built up a large dairy business. For nearly a year had been very nervous and upset. His work seemed to tell on him and he began to lose physically. He became irritable, lost his temper easily and at times had severe headaches. During March 1919 he suddenly noticed a peculiar change in his gait and loss of power in left hand. After a few days he felt better and was able to do some work. He gradually developed a marked spacticity in his left leg, however, and had jerky incoördinated movements of the extremities. A little later he showed marked contracture of the left hand, also tendency to claw hand.

After careful examination a Wassermann test was made and showed a four plus finding. Spinal puncture showed a positive Wassermann reaction of spinal fluid. After intensive specific treatment for a period of three months the patient was able to walk around much better, showed little spacticity of the leg and was able to use his left hand quite well. When questioned as to specific history denied an initial lesion or any knowledge that he had ever acquired lues.

Another case, Mr. M., came to me for treatment during 1919. He was suffering from the depressed form of a manic depressive psychosis. The condition had developed after weeks of neurotic symptoms followed by a long period of irritability, during which time he left his wife after frequent quarrels. On admission he was typically depressed and showed marked delusions, somatic in character, also those of a religious nature. Said that he was very unworthy and unfit to live; also that he had seen and talked with the Deity on various occasions. Later said that he had a dread disease and he knew he had acquired it as a young man when out sporting and that he was rotten through and through. Had it not been for the fact that he had an eruption eczematous in character all over his scalp, am afraid we would have made no seriological tests. A Wassermann was made and it showed four plus positive. After a period of intensive anti-syphilitic treatment his eczema cleared up, his mental status brightened and he was taken home by his family, who thought him entirely cured.

Mrs. L. W., brought to me by her husband, Dr. W., for examination and treatment January 1919. For several months she had shown periods of great irritability, was morose and discontented. At times had fits of violent anger and was very abusive. She became so upset mentally that she interfered with her husband's practice and caused him much trouble. At last he found it absolutely necessary to remove her to some institution. During examination and while the doctor was relating the above facts in her presence, it was noticable that the patient was very nervous and excited. She showed marked tremor of the facial muscles and those about her mouth. When interrogated spoke in short jerky phrases. On further examination she showed a marked

romberg, loss of light reaction in both pupils as well as irregularity of pupils. Knee jerks were absent and she was markedly incoordinated. Found that neither Wassermann blood test nor spinal puncture had been made. Suggested such procedure and found blood Wassermann four plus positive, also positive spinal fluid Wassermann. Her husband could not believe it possible when I gave him the seriological findings. Had to tell him his wife was a case of general paralysis of the insane. He was broken-hearted over the matter and shortly afterward committed suicide. During my talk with Dr. W. he admitted that his wife had not been the same for the past five years. Previous to that time she was most dignified in her demeanor, lovable, quiet and always friendly with his patients and their relatives, in fact, a woman beloved in her community. That she should suddenly change in her disposition and become the opposite did not rouse his slightest suspicion. Had she been the victim of drink or drugs it would quite naturally follow that she would become irritable, coarse and entirely different in her attitude toward those about her.

A recent case sent me from a local hospital proved to be very interesting and is an example of the necessity of making proper seriological tests in all of our suspicious cases. Mr. K., aged thirty-seven years, associated with a large business organization, suddenly during January last became very nervous and upset. He laid his trouble to the hard work and strain he had undergone during the recent war. During his stay at the hospital he had been very noisy and upset at night, causing much confusion among the other patients and nurses. On examination he presented a wild, frightened appearance and showed a marked fear state. Later became greatly confused and was unable to answer questions about his condition. The following day he was very haughty and aggressive in his manner. Said that he was entirely rational and needed no treatment. His neurological examination showed patellar reflexes much increased, marked swaying in romberg position, tremor of extended tongue and facial muscles, marked tremor of extended hands and pupils reacted sluggishly to light and accommodation. His general appearance, the history of mental upset at the hospital and the marked fear state he had

shown, also exaggerated ego in his conversation, led me to have seriological tests made. The findings were a four plus blood Wassermann, a three plus spinal fluid Wassermann, a plus globulin increase and a cell count of 52. Patient was put in bed, given absolute rest and sedative treatment. He is rapidly getting into normal condition and his physician has recommended his return home. He must have intensive anti-syphilitic treatment at once as undoubtedly he has an active neuro-syphilis.

Mrs. D. came under treatment during July 1919. She related that at the age of twenty-four she had developed an infection of her tongue, the result of the prick of a pin. After an illness of three weeks she was apparently all right. Was very well after that until she reached the age of thirty-nine, fifteen years later. At that time she suffered from severe pains in her limbs. Her physician became suspicious and had a Wassermann blood test made with a slightly positive finding. Intensive mercurial treatment was administered and the pains disappeared. Patient remained quite well after that until two years ago during March 1919, when she became much upset but was kept at home under treatment. On admission she was easily tired and greatly worried. Had lightning pains in her extremities and was very weak physically. Was very hysterical and cried a good deal. Wassermann test was made and showed a four plus positive finding. She was given modified rest treatment, also intensive mercurial treatment. After a few weeks brightened up materially and was taken home very much improved. Recently met the lady and she reported that she had felt quite herself for some months. Later we found that she suffered from a neurasthenic attack of some months duration at the age of thirty. Had intensive anti-syphilitic treatment been carried on at that time she might have been saved months of suffering. This case only emphasizes the necessity of Wassermann tests over a long period even though we believe the case cured.

Mr. F., another interesting case, came to me for treatment during June 1920. He had suffered for years from mild manic depressive attack of the depressed form. These attacks were followed by periods of extreme dissipation. During such periods

he suffered greatly from alcoholic excess. Gave history of chancre at age of eighteen years. Three years ago had a Wassermann test with positive findings but did not accept treatment. About two months before I saw him he had become very careless about his personal appearance: had always been careful about his dress but lately had become careless and slovenly. Was very forgetful, would repeat the same questions over and over, complained of arms feeling numb and pain in legs. At that time had another Wassermann blood test made with positive findings. Was given one dose of salvarsan intravenously followed by mercurial inunctions. On examination his neurological findings showed marked incoördination, romberg was present, pupils did not react to light but did accommodate. Gait was slightly spastic, knee jerks equal and fairly active. Showed marked tremor of extended tongue and muscles of the face. In conversation had slurring speech and stumbled over test phrases. His emotional state was very unstable, at times very much elated, again greatly depressed. Seemed to have a fair insight into his condition. Said he would be better off dead, as it was impossible for him to get well. Was under treatment six weeks but showed no improvement. In this case had lues been discovered years ago and the proper treatment instituted the patient might have fared better. The alcoholism was probably secondary to a neuro-syphilis.

Another case, Mr. M., treated during December 1920 and January 1921, types the depressed phase of a neuro-syphilis. This patient denied absolutely any history of venereal infection. Will admit that I had no idea of lues in his case. For six or seven weeks he showed a marked depressed phase of an apparent manic depressive psychosis. This followed a history of insomnia and worry of nearly six months duration. At times he seemed a little brighter but for the most part was dull and apathetic, interrupted by periods of self reproach and weeping. He showed marked arterial change, this in itself being very suspicious in a man at the age of forty-five years. After he had been under my care for a few weeks his relatives became dissatisfied because he showed no sign of improvement. Finally when their patience was nearly

exhausted and they were about to seek other medical advice, it came to mind that there was no history of a Wassermann test for lues having been made. Had a Wassermann blood test made with a three plus finding. Immediately started anti-syphilitic treatment and the patient showed marked improvement in a very short time and is now rapidly getting better.

These patients whose history I have related manifestly did not have the benefit of proper treatment in the early stages of their lues. Of course one cannot say to a certainty that they would have been cured had proper treatment been given them years previous to the outbreak of their disease, which absolutely unfitted them for their life work and made them invalids for many months.

Our State institutions are populated with hundreds of cases of mental disease with a specific basis. Neurological clinics all over the country are constantly admitting such cases, many of whom were pronounced cured within a couple of years after their initial lesion. In most of these cases no follow up had been made or treatment instituted. Many of them married and had apparently healthy children with no thought or suggestion that the dread disease was latent in their system, the first indication that a cure had not been effected in their individual case coming after months of pain and suffering or after prolonged neurasthenic symptoms accompanied by anxiety and morbid depression. Lues is insidious in its attack on the brain and central nervous system and our only protection is a continuous follow up in the after-treatment of its victims. No case of lues should be pronounced cured until several years have elapsed with no positive findings on seriological examination at reasonable periods. Was much surprised recently to have a certain specialist inform me that he discharged his cases of lues as cured after two years' treatment, providing that they had shown negative findings in all tests during the second year of treatment.

The early recognition of lues in suspicious cases is constantly before us and it behooves the medical profession to be most careful to have proper tests made at once of all suspected patients and in many of them tests made at a later date should the first findings be negative. We are constantly coming in contact with patients who have suffered from the ravages of lues for many years. The

question is, could these patients have been saved years of misery had their disease been discovered in time to give them necessary treatment.

My purpose in writing this paper is to emphasize the necessity of the early discovery and proper treatment of lues. If it is helpful in the least to achieve that end, it will have served its purpose.

DISCUSSION.

DR. MAX MAILHOUSE (New Haven) : Everything has become so syphilitic nowadays that the profession seems to have become panic-stricken over it. Of course it is well that this should be the case with the public, but we must keep our feet on the ground, keep cool and use our brains as our fathers used to do, in making diagnoses.

However, this state of mind in the public has not a little to do with the morbid fears of the Psychoneurotic, whether syphilitic or not. I am inclined to look upon such as constitutional psychopaths and the spirochete as the torch that sets the flame agoing.

The doctor has not referred to an interesting, though in my experience rare, type of psychosis, which develops during the early secondary stage of syphilis, and which is due to the toxæmia, a true toxic psychosis of the confusional type. This, unlike paresis, is not accompanied by organic (degenerative) changes in the brain. The etiology of these is likely to be over-looked, first coming, as they do, into the hands of the general practitioner or the syphilologist; the latter should certainly be prepared to recognize the relation between symptoms and cause; the former should bear in mind its possibility and place it in his list of causes of acute confusional insanity.

Paresis, such as has been delineated in the cases described in the paper, is ordinarily readily recognizable, but, as the doctor truly says, not a few of them begin with such typically neurasthenic symptoms that the etiological factor is misplaced. These patients usually do have an antecedent history of mental or physical strain, (grief, business or other worry, trauma, alcoholism, etc.) as we see in ordinary neurasthenics, but these are merely activating influences and, as the doctor says, we should be on our guard with patients who have not yet reached middle life, lest we overlook the cause. Repeated Wassermann tests upon the blood are not sufficiently decisive; in all such, provided the patient does not improve, a complete spinal fluid examination must be insisted upon; indeed if the patient will agree, in order to save him time, both might be done at once. This of course would be impossible in the manic states which sometimes inaugurate the tragedy of paresis, owing to the irritability and refractori-

ness of the patient; but, if possible, it should be done. In many cases we will have to rely upon the therapeutic test, a not very satisfactory method to the conscientious physician.

It might be well to refer in passing to the difficulty of deciding, except by the therapeutic test, between cerebral lues, with its varying pathology, and paresis.

Finally I would like to ask what Dr. Barnes would do in a case like the following:

Male, age 33, single, first seen 2½ years ago, complains of nervousness; irritable, weak at times, pains, chancres one year previously and formerly drank much; physical signs tabetic in type; blood Wassermann negative; slight degree of general adenopathy. The following year marries the widow of a man who had died of dementia paralytica, and who now has a 4 plus blood Wassermann and is improving under mercury and arsphenamin. Since his marriage he has developed lightning pains and continued to exhibit his neurasthenic syndrome. Still exhibits some physical signs of tabes mildly. Spinal fluid one week ago absolutely negative in every respect, except for positive though slight increase in pressure. He failed to improve under mixed treatment administered orally.

Query:—Did he have lues before marriage? If so, and he had not been cured, he could not have acquired a superimposed infection from his wife. If he now has neuro-syphilis, why is the spinal fluid entirely negative?

DR. TERHUNE (New Haven): I would like to ask Dr Barnes what his experience has shown in regard to the occurrence of neuro-syphilis in congenital syphilitics. Kingery in the *Journal of the A. M. A.* reports in a study of 52 cases of prenatal syphilis that 28% of them showed cerebro-spinal involvement. Jeans states that one third of hereditary syphilitics have an involvement of the central nervous system, while Moore found that only 9% of hereditary syphilitics over 10 years of age showed such involvement. Moore's findings would indicate that congenital neuro-syphilis claimed its victims early. The reports referred to were made principally from laboratory studies and it would be interesting to learn if Dr. Barnes had made similar observations as the result of his clinical experience.

The laboratory study of the spinal fluid is, as Dr. Barnes says, not only interesting but very important. Wile and Halsey studied 221 cases of syphilis seen in the pre-rosolar period and found a deviation from the normal in the spinal fluid in 49 cases or 22%. This indicates that neuro-syphilis has its origin in the early stages of the disease. I consider that it is very important that all neuro-syphilitics have frequent spinal fluid examinations as well as sero-Wassermann tests.

DR. A. G. NADLER (New Haven): What is meant by intensive treatment of syphilis and what preparations of the drugs do you use?

DR. BARNES (closing): I referred to psychoses in general and did not treat any individual psychosis. In all of these cases Wassermann blood tests and spinal fluid tests were made at the same time. I think Dr. Mailhouse rather framed me up and tried to get me to diagnose an obscure case. Probably his treatment cured the patient.

DR. MAX MAILHOUSE (replying to Dr. Barnes): It is straightened out; the man is not dead. As regards congenital syphilis, I have had very little experience in so far as infants are concerned. I have had no syphilitic cases in infants. We have used salvarsan, a six weeks' course of treatment intravenously, in most of our cases; and have followed that up with mercurial treatment by inunctions or by injection of mercury into the buttocks. We have had fairly good success by using the injections and inunctions at the same time. In some cases we have used the salvarsanized serum in the spinal fluid,—I cannot say with any very good results.

Tabes Dorsalis: A Plea for Early Diagnosis and Rational Treatment.

HENRY F. STOLL, M.D., Hartford.

Our conception of tabes dorsalis, the most common of the chronic diseases of the spinal cord, has undergone many changes during recent years. That it was in some way related to syphilis was early recognized by Fournier and his contemporaries, but the fact that the common manifestations of syphilis had usually been in abeyance for many years when the symptoms of tabes made their appearance, led to the belief that it was a sequella, rather than a manifestation of an active syphilitic process. It was accordingly considered as a para-syphilitic affair until the modern methods of spinal fluid examination conclusively established its syphilitic nature.

Infection of the nervous system takes place at the time of maximal spirochetal mobilization in about 25% of cases, that is during or preceding the period of secondary manifestations. Studying infants and young children suffering from congenital syphilis, Jeans found the nervous system involved in about 33%. It is interesting to speculate why so many years elapse after infection before symptoms appear. Warthin has demonstrated that spirochetes may, for a time at least, lie between the cells of the heart muscle without producing any change in the adjacent cells. It is quite likely that the same thing obtains in nervous tissue. We know that the changes produced by syphilis are brought about very slowly. Years elapse between the beginning of the peri-vascular infiltration about the vasa vasora in the adventitia of the aorta and the appearance of aneurismal symptoms. The same must be true when the nervous system is attacked. In some cases trauma seems to precipitate the symptoms; in others exposure, overwork, excesses, etc., seems to be responsible. It has been suggested that the initial implantation of spirochetes in nervous tissues does not constitute an infection as we usually understand it, but produces rather a sensitization or a condition of allergy.

Later when as the result of some of the causes already enumerated, there is a fresh mobilization of organisms or their toxins, flooding of the nervous system results, with activation of the previously established foci. Before discussing the symptomatology and physical signs, it may be well to very briefly consider the present conception of the pathology. It is now believed that the degeneration in the columns of Goll and Burdach is not primary but secondary to change in the posterior roots and ganglia. The process probably begins as a slowly progressive meningitis, often minute in extent, about the posterior roots proximal to the ganglia. The small vessels of the pia arachnoid show a perivascular plasma and round cell infiltration. This inflammatory process, possibly by pressure, results in a degeneration of the ganglia and of the centripetal nerve roots which is followed by an ascending degeneration in the posterior columns. It is at once apparent that a recognition of the symptoms and signs that precede the stage of degeneration is of paramount importance if our therapy is to avail.

A basilar meningitis is frequently present and implication of the cranial nerves often follows, especially the third, fourth, and sixth; in fact this may be the first evidence of involvement of nervous system. The most dreaded of all manifestations, optic atrophy, is now thought to be secondary to meningitis. A degeneration of the sensory neurons has long been recognized, but its sequence in the pathological process is not constant. From the extensive and varying pathology it is obvious that the symptomatology must be exceedingly diverse and often confusing. Curious complexes arise due to the fact that certain sensory neurons are in a state of acute irritability causing pain, while others more or less completely degenerated cause varying degrees of anæsthesia and paræsthesia. The difficulty in walking for instance, apparently a motor disorder, is not however due to motor tract involvement but to degeneration of the sensory neurons with resulting loss of the sense of position. Because of the great variety of symptoms we see tabetics seeking relief not alone from their family doctor but from the specialist in "rheumatism," the orthopedist, the gynecologist, the eye, ear, throat,

and nose specialist. We see them swallowing stomach tubes, duodenal tubes and barium meals; using vibrators and electric batteries, being robbed of their prostates, and periodically having their abdomens explored. One is impressed in taking the history of these unfortunates not only with the long period of time that elapses between the primary infection and the development of symptoms, but by the number of years that often elapse after seeking relief before the nature of the trouble is recognized. In order to illustrate this varied symptomatology I have reviewed some fifty cases comprising hospital, referred and private patients seen during the past few years. Pain is by far the most common symptom complained of. The common term "lightning pains" well describes their sudden onset, stabbing nature and rapid abatement. They were present in over fifty per cent of our cases. The pains, however, are not always so intense and characteristic and sciatica may be closely simulated. In cases with a negative serology spondylitis may be the cause. While pain is the chief symptom, careful questioning will frequently reveal that other symptoms, perhaps more characteristic of the condition than the pain, have existed for some time previously. It is for this reason important that a very complete history be obtained whenever patients complain of vague pains in various parts of the body, as the fitting together of isolated and in themselves insignificant data will oftentimes enable one to make a diagnosis that the blood and spinal fluid examinations will substantiate.

Case I. When J. H. was thirty-nine years old he began to notice that he would have sharp fleeting pains just above his heels in the evening; if at a meeting he would frequently have to go out, as walking about caused the pains to disappear. There was also a drawing sensation as though his feet were in a vise. These pains were suggestive, but their significance was increased many-fold by the fact that for several years he had noticed that he could go for many hours without any inclination to passing his urine, and that when he did void he passed a large amount. These symptoms slowly increased and his hearing began to fail. About five years later incontinency began and the urine became foul. At this time, ten years after the first symptoms and twenty-

five years after his chancre had been cauterized, he was referred to a surgeon for a prostatectomy. Fortunately the surgeon happened to be the late Dr. O. C. Smith, who recognized a cord lesion and referred him to me.

Bladder symptoms are mentioned as occurring early in 35% of this series. This percentage I think would have been increased if more care had been taken in investigating it. Unconscious distension and difficulty in starting the stream are the most common symptoms and usually preceded incontinency. The characteristic cystoscopic appearance of the bladder wall will be referred to later.

So gradual may be the loss of conductivity of the centripetal neurons that originate in the skin, muscles and joints and keep us advised as to the position of our extremities, that unsteadiness in performing accustomed movements may first be noticed by others; thus a man who considered himself well was told by friends that he walked as though intoxicated. It is not uncommon for patients to note unsteadiness in going up and down stairs as the first symptoms, though they will often acknowledge that their feet had felt numb for a time previously. The first symptom one woman noticed was that she bumped against the corners of the table when walking about her living room, and found it necessary to steady herself; this was several years before the lightning pains began. Another woman first noticed difficulty in threading her needle, apparently due to lack of coördination rather than to poor vision.

Case II. A married woman of forty first noticed a "numb, dead" feeling in the outer aspect of the lower third of the left thigh. Later the same sensation extended over the sides of the chest and the right shoulder. It was not until several years later that the development of severe leg pains caused her to seek relief, at which time the signs of tabes were definite.

Some of the symptoms are quite typical of what we term neurasthenia.

Case III. A man of thirty-six complained of a nervous feeling in his stomach, and "gas"; also nervousness in his back and insomnia; he was too nervous to work. The stomach symptoms

were by far the worst and a specialist washed his stomach on eighty consecutive days. When I saw him several months later he was an advanced tabo-paretic.

Two cases were recently in the hospital at the same time and are so dissimilar as to be deserving of special mention.

Case IV. Three days before H. H., a maid in the hospital, was admitted as a patient she began to feel weak and had difficulty in getting about, especially when walking down stairs. This rapidly increased and when seen she could not stand alone. The pupils were unequal, dilated and immobile; the deep reflexes were absent, the blood Wassermann was positive, the spinal fluid Wassermann was positive, and the colloidal gold showed a paretic curve.

Compare the above with the following.

Case V. A married woman aged twenty-six years complained of palpitation and dyspnoea. Eight weeks before she had a curetage following a criminal abortion; one week later began to have tachycardia and became short of breath. A little blood had been present in the urine several times. She was very nervous, which seemed to account for the rapid heart action, which was 140, perfectly regular with all beats coming through to the wrist. A rate of over 120 was maintained for a number of days. She was emotional and cried a good deal. The urine obtained by catheter always contained red blood cells. The amount and gravity were normal and there was no nitrogen retention, though there was some diminution in the phthalein output. Pupils regular, equal and actively mobile. Knee jerks much diminished and unequal. Ankle jerks present at first, subsequently disappeared. Blood Wassermann positive, spinal fluid Wassermann positive, luetic curve.

The pains due to lesions in the upper segments of the cord are less common and more difficult of recognition. When typical, the patient experiences a sense of constriction as though a rope or a band was drawn about the chest, about opposite the line of the attachment of the diaphragm. The sense of constriction, however, is not always well marked, especially at the beginning.

Case VI. M. P., aged thirty-seven, eleven years previously

and seven years after his initial lesion began experiencing severe pains through the lower part of his chest and the upper part of the abdomen, more marked on the right side. Electricity failing to give relief, the right nipple and a small amount of mammary gland immediately surrounding it was removed. The pain persisting, with commendable perseverance, though with questionable judgment, the surgeon removed the other nipple. Eleven years after the pain started he was an advanced tabetic.

Case VII. D. J., a woman aged thirty-six, complained of pain under the left scapula. This was diagnosed as pleurisy and some relief seemed to follow the application of adhesive straps. It was subsequently present along the right side as well. It finally became more marked and was then described as a sense of constriction as though something were tied about the chest. Soon the development of gastric crises and the loss of the reflexes placed the diagnosis on a firm basis.

Very distressing are the so-called crises affecting various viscera: stomach, kidney, heart, larynx, etc. Gastric crises are the most common and were present in 6 per cent of this series. When they precede the pupillary changes and the loss of the deep reflexes they are very difficult of diagnosis. The slight leucocytosis that frequently occurs increases the difficulty. The crises are generally described as beginning without prodromata; severe attacks of pain and vomiting lasting for a number of days. In a few cases I have, however, seen the attacks preceded by two or three days of discomfort and drawing sensations in the lower part of the back, described by one woman as similar to labor pains. While the severity of the pain may suggest gall stones the most common mistake is to diagnose some stomach lesion. Sufferers from this condition have repeatedly been operated upon, not once but several times.

Case VIII. L. O., age thirty-six, who had a chancre years before, was admitted to the Hartford Hospital about ten years ago, complaining of severe abdominal pain and persistent vomiting of several days duration. Several years before, when he had the same symptoms, he was operated upon for suspected gall stones in a hospital in Brooklyn, but none were found. Fifteen months later he was operated on in New York for adhesions; six months

later, his symptoms persisting, he was again explored in another New York hospital. As he appeared to have an open season for laparotomies the year round and his reflexes were normal, it is quite natural that we should emulate the example of the distinguished New York surgeons. Accordingly the abdomen was opened for the fourth time, revealing nothing but a mass of adhesions.

But this was years ago; to-day with the assistance furnished by the X-ray, the blood Wassermann and the spinal fluid examinations, such mistakes would not occur. Of course the tabetic is liable to any of the other maladies to which man is heir, as a recent patient demonstrated. He had severe upper abdominal pain and the typical signs of tabes but a negative blood and spinal fluid. Anti-syphilitic treatment did not relieve him, so the abdomen was opened and a carcinoma of the gall bladder was found.

Laryngeal crises are fortunately very rare and occurred in but one of this series.

Case IX. M. E., aged thirty-nine, had very severe attacks of choking, first coming on after drinking to excess. He would awaken at night choking and would become deeply cyanosed. All accessory muscles of respiration were called into play. Pulse was recorded as being of good quality in one attack and very faint in another one. The attack would last from a few minutes to an hour. During the severest attack in 1913 artificial respiration was resorted to and it seemed as if death would take place at any minute. He had been suffering very severely prior to the time from leg pains and had been given a number of hypodermics of morphine. It is possible that this was a factor, as tabetics are occasionally met with who stand morphine very badly. I almost lost one patient following the administration of a small amount of codeine and morphine for severe leg pains.

Severe pain referred to the kidney designated as a renal crises occurred in three patients. In one man who also had gastric crises, the pain radiated to the testicle. There may be no radiation; the pain suddenly comes on with great intensity, persists for a few minutes and then subsides momentarily, being very intense and confined to the renal region.

Case X. One of the most interesting cases of this series is a

man aged twenty-two referred to me by Drs. Kingsbury and Hutchison, to whom I am indebted for the early notes in the case. He complained of severe pain in the right flank radiating to the penis. Also hematuria and increased frequency with difficulty in starting the stream. He had had two similar attacks during the two years preceding and during one of which there had been considerable albumin in the urine. The pupils and knee jerks were normal, X-ray for kidney stone was negative. Cystoscopy by Dr. T. N. Hepburn, who made the following résumé of his findings:

"It is evident that this man's kidneys are functioning equally and apparently normally as shown by their excretion both by indigo carmine and phthalein. His marked bladder trabeculation suggests some spinal cord pathology. The history of urine spasm during his attacks of renal colic with swelling of the extremities suggests that at these times he has acute nephritis with hemorrhage. In view of the fact that the ureters admit No. 7 catheters without difficulty under anæsthesia and the X-ray being negative, there seems to be no calculus pathology. With his marked bilateral hemorrhages and his normal renal function, the diagnosis of essential hematuria seems very possible. His bladder nervousness with intermittent bladder spasm suggests the true bladder tic. My personal diagnosis is that he has essential intermittent hematuria with blood clots forming in his ureters causing ureteral spasm and secondary bladder spasm, which causes his incontinence. My treatment should depend largely upon the spinal fluid examination and Wassermann."

Both the blood Wassermann and spinal fluid Wassermann were positive and the patient showed the paretic colloidal gold reaction. Two years later the pupils were immobile and the knee jerks had disappeared. This is one of five cases in which the infection was a prenatal one. Drs. Hepburn and Spillane have cystoscoped all of our recent cases and the bladder trabeculation has always been found. The trabeculation may be due to hypertrophy of the muscles of the bladder resulting from an attempt to overcome the distention which takes place because the sensory nerves of the bladder that initiate the act of micturition are degenerated.

One never ceases to marvel at the extensive pathology that may be present without causing symptoms. I vividly recall a man brought to the Hospital some years ago because of a minor injury,

who had an aneurysm as large as a child's head. He stoutly maintained that he had no symptoms and refused to remain longer than was required for his scalp wound. Many of you have seen patients with extensive pulmonary tuberculosis who had at no time had any symptoms of this disease. The following case illustrates the necessity for a complete examination irrespective of the patient's complaint and demonstrates that extensive changes of a permanent nature may be present in the nervous system notwithstanding the complete freedom of symptoms.

Case XI. C. E., a robust man of forty-four, who looked the picture of health, came to me for an examination of his lungs. Several years previously had had tuberculosis and bacilli in his sputum. Though he has been free from symptoms for some time he was recently advised that it was a bit too soon for him to resume his work. He desired the examination in order that he might secure a pension as a Spanish War veteran. He had a very few fine rales on coughing at the apices; they did not suggest activity. His blood pressure was considerably elevated and there was a heavy trace of albumin in the urine. There was left external strabismus. The pupil of this eye was normal; that of the right immobile. Both knee and ankle jerks were absent. Blood Wassermann four plus; spinal fluid Wassermann positive in .4 cc.

There is still another type of a case equally symptoms free and in addition with an entirely negative physical examination, except for a persistently positive blood Wassermann. This is the pre- or potentially tabetic case and if promptly recognized and adequately treated a cure can often be effected.

The following is an example:

Case XII. R. J. was referred for arsphenamine treatment because of gangrene of the hand. This improved promptly under further injections of arsphenamine but his Wassermann test after he had had fifteen treatments with a course of iodide and mercury was still positive. A patient whose Wassermann cannot be influenced by a course of eight or ten injections of arsphenamine should always have the spinal fluid examined, as it will be found positive in the majority of instances. We have had three such cases recently. The physical examination may be entirely nega-

tive or the degree of reaction of the pupils to the light test may be slightly diminished and the reflexes perhaps slightly increased. This patient had a positive spinal fluid Wassermann in .5 c.c. and was put upon intraspinal treatments. Occasionally the blood Wassermann may become negative after intravenous treatments, but a positive reaction will be found in the spinal fluid, even though there be no symptoms. Accordingly a spinal fluid examination should be made on all cases at the conclusion of the second course of injections.

Time permits of only the consideration of the more important points in the physical examination.

The Argyll Robertson pupil, reacting to accommodation but not to light and completely immobile pupils, often irregular in outline and unequal, are the usual findings. It should be more generally known that occasionally one or both pupils may be quite normal, especially early in the disease. In nine of our cases the pupils were at first normal though in four which were followed for several years, they subsequently showed the changes characteristic of the disease. It is probable that a sluggish and diminished response to light regularly precedes immobility. Save in one instance following hemiplegia, I have never seen the light reflex return. In this case the return was only partial and did not persist. The knee jerks were absent in 60 per cent of our cases, diminished in 19 per cent and in a few instances increased. The nature of the pathology is such as to suggest that this probably occurs more frequently than has generally been assumed. Two patients exhibiting increased knee jerks several years ago and who have had a good deal of treatment, now show a normal knee jerk though one has lost ankle jerk during the past year. Another patient who had increased knee jerks several years ago has none at present. The ankle jerk is not recorded in all of the cases but it was absent in four in whom the knee jerk was present. In two instances the knee jerk could not be obtained though the ankle jerk was present. In two instances the knee jerks and ankle jerks returned following treatment.* The blood Wassermann was

*A diminution of tactile and pain sense may precede any other physical sign. A patient with girdle pains exhibited a band of anæsthesia across the lower part of the chest two inches wide with hyperæsthesia above and below.

positive in 64 per cent of 51 cases tested. In 37 the spinal fluid was examined; the Wassermann was positive in 60 per cent. In a few instances the spinal fluid was positive when the blood was negative. An increase in cells was very common. The colloidal gold test was made in our more recent cases which are too few to analyze, though it seems to show the coexistence of paresis is more frequent than we have hitherto supposed.

DIFFERENTIAL DIAGNOSIS.

It is apparent that the diagnosis of tabes does not rest on any one set of data; only by a consideration of the symptoms, the physical signs and the blood and spinal fluid examinations can we arrive at our diagnosis.

TREATMENT.

Before proceeding with the discussion of intravenous and intraspinal therapy it is perhaps advisable to refer to a number of important points in the management of these patients that are sometimes overlooked. The posture of the tabetic is usually faulty. He is prone to assume the attitude so characteristic of all asthenic states, viz., abdominal protrusion with thoracic recession, resulting in increase of the lumbosacral curve. The abduction of the feet that occurs with increasing unsteadiness is usually associated with marked pronation and loss of the longitudinal arch. The usual corrective exercises and appliances for these conditions should be prescribed. Patients exhibiting marked ataxia should be given re-educational exercises. Hydrotherapy requires no elaborate apparatus and is especially helpful in some cases. Careful search for foci of infection, especially peridental abscesses, should be made as they are sometimes a factor in causing pains. It is unnecessary to state that the immobile pupil and absent knee jerk do not call for anti-syphilitic treatment if all symptoms of activity are in abeyance and the blood and spinal fluid are negative.

It is impossible to formulate a plan of treatment suitable to all cases. Individualizing, always important, is particularly so with this group. It is rather generally believed that fewer of the

nervous reactions occur if mercury and iodide are given for a short time—two or three weeks—before arsphenamine is started. The frequency of treatment depends on the results to be expected. If we believe we can annihilate our enemy by assault, as is possible when dealing with a primary lesion, a few intravenous injections may well be given at two or three day intervals. When, however, the enemy through long years of preparation is well entrenched, the assault is ill-advised; much more can be gained by a prolonged siege. Accordingly in tabetics we will do well to give arsphenamine injections at weekly intervals for the first two months, during which time iodides and mercury either by inunctions or injections may safely be administered if one be on the alert for evidences of renal intolerance. Another month of mercury, then a rest period of a month or two and another course of arsphenamine injections is a safe procedure to follow. When the symptomatic response is unsatisfactory or when we are not successful in reducing the Wassermann or colloidal gold reaction of the spinal fluid, intraspinal treatments should be used. The original Swift Ellis method is generally conceded to give the best results. The reactions are less than with any of the modifications or substitutes that have been suggested. After a thorough trial of the fortification method suggested by Ogelvie, Fordyce has gone back to the original and simpler technique. It is not my brief to argue the rational of intraspinal treatment; this has been done by far abler men. The fallacy of the claim that the good results are due to the drainage incident to the treatments, has recently been shown by Fordyce and Stokes, both of whom obtained prompt clinical and serological improvement when intraspinal treatments were substituted for spinal drainage. Solomon, who for years advocated only intensive intravenous treatment, now employs intraspinal therapy in suitable cases. The recent work of Dandy with cerebral pneumography has shown that when there are no adhesions at the base all the deep and superficial spaces may be reached by the intraspinal route. It is a mooted point whether the injection of an irritating substance subdurably increases the permeability of the choroidal plexus. As there is some evidence to suggest that this may occur, we have recently been giving our intravenous

injections within an hour after the intraspinal; the serum for the latter having been obtained the day previously from another patient. As yet we have no opinion as to whether this reversal of treatments is of any special value. The method, however, is quite as well borne as the original technique.

How many treatments shall we give the tabetic? A dozen maybe if he is fortunate in having the diagnosis made at the first inception of symptoms—or better still by spinal fluid examination when asymptomatic and in the pre-tabetic state. When not recognized until the pathology is extensive, he will probably require occasional treatments all his life. Even though there be advanced nerve degeneration it often happens that there are some neurons still intact and capable of carrying on with assistance. Active treatment in these cases will often restore the latter to functional efficiency. This is occasionally demonstrated by the marked improvement in vision of a patient who wholly from the ophthalmoscopic standpoint has advanced optic nerve atrophy. It is often gratifying how much improvement we may obtain even when the treatment is deferred until many years after the primary lesion. The first case mentioned in whom treatment was not instituted till twenty-five years after the chancre and ten years after the beginning of symptoms, has greatly improved in his general health and no longer has pains though he still has some numbness in his feet. He has worked steadily during the last seven years since the treatments were started and has missed no time for work through illness, a record that is not equalled by anyone in the office where he is employed. He is still incontinent at night but less so. He walks very much better and throughout the summer works daily in his garden. He has had twenty-seven injections of arsphenamine and twenty-four intraspinal treatments. For the past six months, his blood Wassermann has been negative though the spinal fluid still shows a positive Wassermann in .5 of a c.c. and a positive luetic curve. Even more striking were the results obtained in the case who could not stand alone, much less walk and in whom both knee and ankle jerks were absent. Re-educational exercises were started the same time that anti-syphilitic treatment was instituted, and in less than two

weeks she was walking and in one month the knee and ankle reflexes had returned. As she has a paretic colloidal gold reaction though without any symptoms of paresis, she was placed upon intraspinal treatment. She also had a tuberculous process at both apices for which she was sent to the state sanatorium, coming back to the hospital every two or three weeks for treatment. After observing the marked improvement in her general condition and gain in weight, one wonders if this aspect of treatment receives the attention it deserves.

It has not yet been determined that the so called paretic gold curve in the spinal fluid always means paresis, though in a few symptomless cases that have come to autopsy the typical findings of paresis have been found. Associated with a positive Wassermann it indicates extensive parenchymal change, and for that reason, intraspinal treatments should be immediately started. We should not lose sight of the fact that we are treating a patient as well as a disease. The number of treatments depend upon three things: (1), the effect on the symptoms; (2), the effect on the Wassermann reaction; (3), the effect on the patient. Continue the treatments until the symptoms subside and the Wassermann is negative if the general condition of the patient shows improvement. When after several courses of arsphenamine injections the general condition is not improving, though the symptoms may be less, always consider the possibility of an intercurrent infection, especially tuberculosis. Discontinue all syphilitic medication several months, get him outdoors and employ all possible aids to build him up. With an improvement in the general condition the Wassermann will sometimes become negative.

RÉSUMÉ.

I. It has been estimated that 25% of poorly treated syphilitics subsequently develop syphilis of the nervous system.

II. Less than 3% of the cases of syphilis treated intensively during their primary stage show changes in the spinal fluid at the end of the treatment.

III. The spinal fluid of all patients should be examined at the conclusion of the second course of arsphenamine injections; this is doubly imperative in Wassermann fast cases.

IV. A complete history is of the utmost importance in detecting early cases. It will sometimes be "positive" when the serology is negative. Next to darting pains, bladder symptoms, especially unconscious distension, appear to be of especial significance.

V. The pupils may be normal, the deep reflexes present, yet the symptoms may be due to early meningeal changes about the posterior nerve roots.

VI. Arsphenamine intravenously, with mercury and the iodides, will prove sufficient in many cases, especially the early ones. When the symptoms and the Wassermann are uninfluenced, intraspinal treatments should be employed.

VII. When extensive parenchymal change is manifest, as shown by a paretic gold chloride test, intraspinal treatments should be started immediately.

VIII. The amount of treatment should not be determined solely by the Wassermann test; the general condition of the patient is deserving of more consideration than it sometimes receives.

In conclusion the rational treatment of tabes should include not alone the administration of anti-syphilitic remedies but the employment of all known agencies for the improvement of the general health, together with periodic examinations of the patient, his blood and spinal fluid throughout his life.

DISCUSSION.

DR. WILLIAM McDONALD, JR., New Haven: I am very glad to hear Dr. Stoll come out so boldly in favor of the treatment of tabes on antisyphilitic lines. I can look back upon patients treated many years ago who have apparently reached a stationary period. Why the tabetics should yield to treatment and paretics not, I don't know. Like Dr. Barnes, I have not had much success in treating paretics. In other stations where I have been the institutions had the same experience; in tabetics they do get some good results.

There is a great change as to the prevalence of tabes. Tabes is disappearing, I am sure. My own experience goes back twenty years, and our neurological clinics were formerly full of tabetics. To-day, it is getting difficult to find cases on a minute's notice for teaching purposes.

That means that the public is becoming acquainted with the cure, and that it is the cure of prevention: this is a wonderful advance. Perhaps some of you saw a paper recently published in New York showing that alcoholic and syphilitic psychoses in New York State have become reduced to less than half the pre-war percentage. The reduction in alcoholic cases began long before the Volstead law went into effect.

JOHN E. LANE, M.D., New Haven: Doctor Stoll has so well covered the ground of the pitfalls in the clinical diagnosis of early tabes, and has outlined a treatment which agrees so closely with my own opinion of what it should be, that there is no need of discussing these points. I wish simply to emphasize a few points in the prevention of the development of tabes and in the diagnosis of cerebro-spinal involvement before clinical signs have manifested themselves.

The two best preventives of tabes are the early diagnosis of syphilis, and the sufficiently energetic and prolonged treatment of syphilis in the early stages. When that has been done, few patients develop tabes.

Next, the patient should be made to understand that he is *not* discharged *cured at any time*, but that he should be seen for clinical and serological examination at proper intervals. If such examinations are made, cerebro-spinal involvement should be detected before marked symptoms have developed, and in many cases, before any clinical signs have appeared. If proper treatment is begun then, there is much greater chance of checking the progress of the disease.

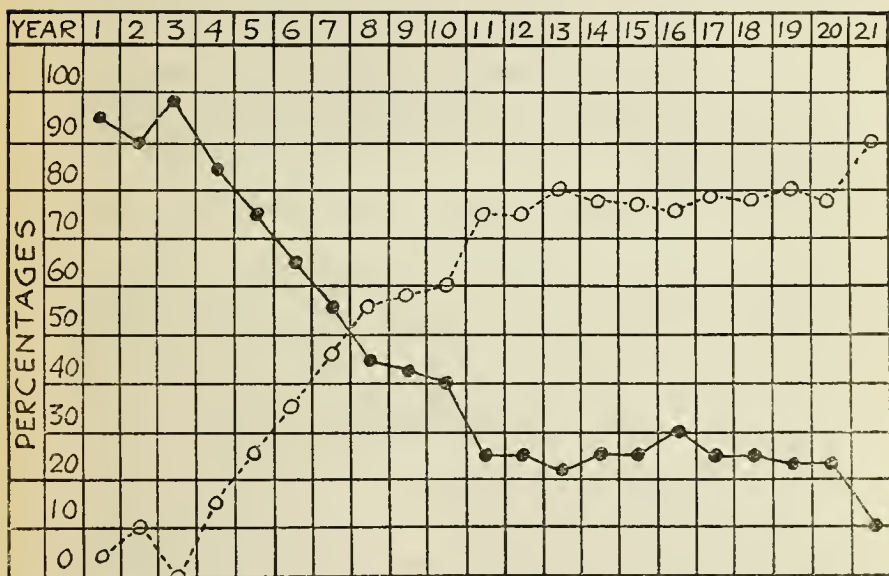
The studies of Wile, Kingery, and Stokes, referred to by Doctor Terhune, have confirmed those previously made by French observers, especially Ravaut, in regard to the frequency of pathological changes in the cerebro-spinal fluid in early syphilis. When there is such early involvement the patients should be carefully watched, but it should be remembered that many of these spinal reactions are transitory, and do not necessarily indicate later disease of the central nervous system.

Goubeau has recently made some interesting observations possibly indicating that in some cases a lumbar puncture in early syphilis may be the determining cause of positive spinal fluid findings, as in a number of treated cases with *negative* Wassermann reaction in the blood, a first puncture gives negative findings and a second one a few weeks later gives positive findings. He believes that on account of this, a few treatments should always follow a lumbar puncture in early syphilis.

Ravaut has recently published some interesting results from the examination of the spinal fluid findings of syphilitics at various stages of the

disease in relation to the presence of clinical signs. His table, which is here reproduced, shows "curves representing year by year, *positive reactions in the spinal fluid of 1,000 syphilitics.*" The continuous line (—) represents patients showing no clinical signs of disease of the central nervous system. The broken line (o....o) represents patients presenting clinical signs of disease of the central nervous system.

The period between the fourth and tenth years is that of greatest oscillation, and hence the time during which it is most important to follow the patient with the view of detecting cerebro-spinal involvement in old cases and of treating it before clinical signs appear.



DR. H. S. BACKUS, Hartford: There are one or two points I wish to speak about in regard to the plea for early diagnosis and rational treatment. I would like to ask how many here are having dark fields done? (Answer,—five.) Dark field examination is one of the earliest methods for diagnosis, and it is by far the strongest test in that direction. Any suspicious sore should by all means have a dark field examination, because there are so many hours and days before a positive blood or serum reaction will show anything, that we can save time and perhaps cure a patient before anything positive will develop.

Wolff excised 500 chancres and only three were without secondary symptoms. Those three might not have been diagnosed correctly. That was enough to prove that excising or curetting a chancre is useless with the idea of aborting syphilis. That is the point. Do not curette or excise any penile sore until a dark field has been done, and seldom then.

Speaking about intensive arsenical treatment; in only fifty per cent or half the serum taken from the spinal cord did we find that arsenic had penetrated through into the spinal canal in cases that had been given salvarsan intravenously. That shows that it is necessary to treat intra-spinously many cases where we cannot get blood negative or serum negative Wassermanns. I have had opportunity to become familiar with Fordyce's method of preparing serum for intra-spinous treatment. He takes one decigram of salvarsan and dissolves it in 30 c.c. of distilled water. Then take 10 c.c. and dilute it with half per cent saline to 35 c.c. One c.c. of the latter solution equals one milligram. For the first dose he gives 1/10 milligram added to the fluid drawn from the spine. He says that it should be warmed, to improve the strength and action of the drug. The treatment should be given every two weeks, and as many as ten to twenty can be given.

Again, to back up the plea for early diagnosis: Do not curette or fool with a sore until you have diagnosed what it is.

DR. C. J. BARTLETT, New Haven: Dr. Stoll has suggested to me that it might be of interest in connection with these papers on syphilis to indicate the extent to which the physicians of the state are calling upon the laboratory of the State Department of Health for the Wassermann test; that is how many physicians are sending specimens there for this purpose and how many Wassermann tests are being made altogether. I will give the figures briefly.

Of the 1622 physicians registered in Connecticut, 625 have sent in Wassermann specimens during the past year, aside from those received from hospitals and other institutions. From these latter, 59 other physicians have sent Wassermann specimens who have not sent them from their private practices. While there are other laboratories in the state where the Wassermann test is being made, it seems safe to estimate that not more than fifty per cent of the physicians in the state are employing this test.

It is of interest in considering the parts of the state from which these specimens are sent to note that about thirty-four per cent are from Hartford. The interpretation which is to be placed upon this large number from Hartford would presumably interpret this as indicating that they are more scientific than their colleagues elsewhere. There is another possible explanation, which is that the Hartford hospitals have not yet undertaken

to do the Wassermann test for themselves. I feel that it is a serious mistake that each one of the large hospitals does not provide for doing this test. This is one of the important laboratory tests that should be done in every city of considerable size in the state. It is now being done in Bridgeport; Middletown is preparing to have it done in the local laboratory there, and other cities in the state may well follow suit.

In connection with the examination of specimens of spinal fluid, we have not yet been able to take up the gold chloride test at the state laboratory. The test is a simple one and easily made. The reason why we are not doing it is our absolute lack of space to use more workers in, even if we had the funds to pay them. There has been a very marked increase in the number of Wassermann specimens received for examination; these have amounted to as many as 400 in a week.

DR I. KLEINER (New Haven): I would like to emphasize the importance of the bladder symptoms in these cases of tabes, and especially the importance of doing a routine neurological examination as well as a blood and spinal fluid examination on all patients that come to us with bladder symptoms. Recently I saw within two weeks four cases of tabes all of whom had been referred for cystoscopic examination for suspected trouble in the genito-urinary tract. The neurological examination established the diagnosis. I should like to ask Dr. Stoll or Dr. Hepburn if they have been able to recognize the dilatation of the vesical sphincter that has been described by Caulk and others in this condition. Personally I have not.

DR. W. S. BARNES (New Haven): It has not been my opinion that trabeculation of the bladder has been significant of syphilis. It has been my experience that of the large number of men convicted of bed wetting in the army, practically 90 per cent of the cases were found to have trabeculation. I have found that in other cases where no evidence of syphilis had made any appearance. I don't think urologists are convinced of the direct cause of trabeculation.

In regard to examination for the spirochete pallida, I think the State of Connecticut and its laboratory facilities would be greatly improved if we could have that done. It would be of value for the patients if every physician could send the patient for a dark field examination immediately. It surely is the most valuable time to make an examination, and while the Wassermann reaction is reliable after a certain period, all must admit that syphilis then is well established, and it is rather late for the best results to be secured for the patient.

DR. STOLL asked if any of these cases of enuresis had a spinal fluid examination.

DR. BARNES: No. We had so many of them. One hundred to one hundred and fifty had incontinence of urine. It was generally considered by most of the medical men that it was due to some neurological condition.

DR. STOLL: I wish Dr. Hepburn would say something about it.

DR. T. N. HEPBURN (Hartford): I don't regard bladder trabeculation as a sign of syphilis. The hypertrophy of the bladder muscles is merely an effort on the part of the bladder to function over a non-sensitive trigone. Personally, I have become suspicious of my skill in passing a cystoscope when the patient does not show any objection: the loss of sensitiveness suggests a cord lesion. I have not noticed the dilatation of the internal sphincter referred to. I think it is because of the lack of sensitiveness of the trigone.

In regard to bed wetting, there is no question but that these cases may have a trabeculated bladder, but not associated, so far as I know, with cord lesion. In my experience, they are almost all very sound sleepers. An alarm clock frequently does not wake them up. I think the trouble lies in the cerebral centers. The bladder gets the signals of distension, but they don't stimulate the cerebral centers sufficiently to wake the patient up, so the bladder contracts with the patient sound asleep. Such a contraction has to overcome more than the ordinary obstruction, and the bladder muscle hypertrophies to the point of trabeculation.

Epidemic Encephalitis.

PAUL WATERMAN, M.D., Hartford.

This paper has the sole purpose of indicating the importance which encephalitis has assumed as a clinical problem. Perhaps I can best illustrate this by admitting that I have mistaken encephalitis for influenza, epidemic poliomyelitis, cerebro-spinal syphilis, general paresis, epidemic and tuberculous meningitis, cerebral hæmorrhage and thrombosis, epilepsy, chorea, paralysis agitans, peripheral neuritis from various causes, dementia præcox, manic-depressive psychosis, and brain tumor, to mention cases in which the false diagnosis was actually made and finally corrected, while in other cases the differential diagnosis has been difficult and delayed, and I have no doubt that I have seen other cases of encephalitis in which my error of diagnosis has not been corrected. When I was first offered the opportunity of presenting this subject to you, my first inclination was to decline the privilege because I was at the moment somewhat discouraged by my inability to make prompt and accurate diagnosis when encephalitis was a possibility, but in a moment I realized that my record of mistakes might have their instructive value.

To review briefly the more familiar facts about epidemic encephalitis,—to give a more serviceable and less misleading adjective than “lethargic”: the year 1918 brought to us, along with the influenza epidemic, a small number of cases of this disease, which have grown slowly in number and in clinical recognition during the past two years, cases being reported from all parts of the United States. The same development has occurred in Europe since the disease was recognized in Austria in 1917, and other parts of the world have begun to report cases. In its most common symptoms,—somnolence, fever, and ocular paralyse, it had previously been recognized as a syndrome, several epidemics had occurred, and descriptions of it date back several hundred years, but it is only as a result of the more extensive and intensive study of the past two years that it has come to be regarded as a

clinical entity. It is apparently caused by a transmissible and filterable virus, supposed to exist primarily in the upper respiratory passages. Several microorganisms have been described but the specific organism has not yet been confirmed. The pathological process is an inflammatory process in the central nervous system, the cause of which is presumably introduced through the blood vessels, and which consists chiefly in small round cell infiltration, primarily in the neighborhood of the capillaries, with later degeneration or destruction of nerve tissue and with hæmorrhages, usually minute, according to the severity of the process. This inflammation is of low grade, does not produce pus or wholesale destruction of nerve tissue, and varies widely both in degree and extent, from a slight diffuse disorder to intense local and general involvement. After a few days or weeks of acute inflammation, the process tends to recede, ultimately leaving more or less permanent scar, according to the degree and character of the acute disturbance of the tissue.

The symptoms and course of the disease vary widely, according to the pathological lesion. It is impractical to describe and unwise to expect any fixed syndrome. While somnolence, fever, and ocular palsies have been mentioned as the most characteristic symptoms, many cases occur in which no two of these symptoms appear and some cases in which no one of them is noted. To form a clinical picture of the disease it is best to think of the various symptoms that would be produced singly or in combination by the varying pathological process. In the first place there tends to be a respiratory, less often a gastro-intestinal infection, followed by a hematogenous infection, of low grade, and this in turn by evidence of disorder in the central nervous system. This latter disorder tends to involve a large area of the brain with the result that all the cerebral functions are more or less impeded, but the more significant clinical feature is the tendency toward a maximum involvement of some anatomically distinct area of the system or of several areas simultaneously or in succession. For clinical interpretation it helps, I think, to distinguish the following anatomical areas, according to the functional disorders manifested: meninges, with meningitic or pressure symptoms; cere-

bral cortex, with paretic, irritative, and epileptic symptoms; sub-cortical area, with disorders of association, chiefly psychic; pyramidal tract, hemiplegic types; basal nuclei, thalamus and corpus striatum, chiefly higher coordination and correlation disorders of muscle tone and movement, such as hypertonus, athetosis, chorea, paralysis agitans, and catalepsy; medulla, with cranial nerve palsies of nuclear type and vagus disorders; spinal cord, with disorders of the anterior horns, posterior ganglia, or of the whole section of the cord; and the peripheral nerves, with irritative and paretic sensory and motor disorders.

As a result of this variable anatomical localization, numerous clinical types have been described, as determined by the dominant functional disorder, such as the meningitic, lethargic, cataleptic, epileptic, delirious, acute psychotic, paralysis agitans, choreic, polioencephalitic, and anterior and posterior poliomyelitic types.

Neurological diagnosis in general can often do no more on preliminary or first examination than to determine the existence of a certain anatomico-functional disorder. In some cases it is clear that the given disorder must be a part of a certain disease process, while in many other cases the given disorder might be a part of any one of several different disease processes, the correct determination of the actual process being made by the course of the symptoms, by the successive elimination of some of the possibilities and by the accumulation of symptoms positively indicative of a certain single disease process.

This diagnostic difficulty applies particularly in epidemic encephalitis, because in this disease we have not as yet any single pathognomic symptom. When somnolence is marked, and especially when it is associated with transient or prolonged ocular palsies of nuclear type or even with a history of transient diplopia, in a youth or young adult in the winter half of the year, without evidence of tumor or meningitis, the immediate diagnosis of encephalitis is fairly justified. But sometimes marked meningitic symptoms are present with many small white cells in the spinal fluid, or pressure symptoms with rapidly progressive choked disc and vomiting appear with history of slow onset and of many weeks' duration, and then the diagnosis is delayed. Sometimes the

early picture is that of an extensive anterior poliomyelitis or of a transverse myelitis, in which case the further course of the disease may and usually does provide the differential diagnosis. Rarely the late picture is that of dementia præcox of catatonic type without history of acute onset or illness, or a typical picture of paralysis agitans. Two of this latter type I hope to show to-day, in one of which I had no definite data of the onset, while in the other case I made a positive diagnosis of epidemic encephalitis when I first saw the patient in the first week of the disease. Without this early observation all that one can do in this type is to state that there exists a lesion of the corpora striata, probably the result of an acute infectious inflammatory process and therefore probably epidemic encephalitis.

Sometimes there is a positive Wassermann or other signs of syphilis, sometimes history or evidence of intracranial injury, sometimes some other general infection is present, sometimes quasi-hysterical symptoms confuse the picture. In one case the onset followed a severe electric shock, was succeeded by sleeplessness and marked restlessness that appeared to be largely neurotic, and in turn by a severe streptococcus sore throat, with a history of brief moments of double vision during the early period of restlessness; the electric shock was promptly eliminated as a cause of the total condition, but the streptococcus infection, present from the onset, delayed the positive diagnosis of epidemic encephalitis until the streptococcus infection was removed, while the apparent neurotic factor prevented my giving full weight to the history of diplopia, especially since there was no medical observation of ocular paresis.

I have said that the original designation "lethargic" is misleading, as is the common name of "sleeping sickness," and it is true that if one awaits the appearance of somnolence many cases will pass unrecognized, for sleeplessness and irritability are not uncommon, sometimes marking the onset for several days, to be followed by somnolence, sometimes following an initial somnolence, sometimes alternating with it more or less irregularly.

I think that the most confusing cases are those occurring in older persons in the pre-senile and senile period, when the symptoms on first and even second observation are such as might be

caused by arterial sclerosis of the cord, bulb, or brain, unless perhaps it is the very mild cases that must occur not infrequently and that are liable to be regarded as respiratory infections or influenza and which do not come to hospital or neurological observation. Cases may undoubtedly be surprisingly limited in their clinical manifestations, as in one which complained solely of vertigo, apparently of the auditory type, there being probably affection of the cochlear nuclei on one side.

The spinal fluid has not yet given us much positive assistance in diagnosis, although it assists by exclusion of a few diseases. It is clear, with pressure increased slightly or not at all, very rarely in any considerable degree, sometimes without white cells, more often with 6 to 20, very rarely over 100, with slight if any change in globulin content, and according to some recent findings, with increased sugar content.

None of the somatic symptoms is specific, although their combination or succession is usually strongly suggestive. The cranial palsies are of nuclear type and most commonly of the third or sixth ocular nerves, less often of the seventh, and the third nerve paralysis shows its nuclear origin usually in the involvement of separate nuclei rather than of the whole third nucleus group. When the ocular palsy is the dominant symptom, as it often is, associated with little or even no symptom of involvement of the hemispheres, it tends to persist for several days or weeks, whereas when it is rapidly followed by more marked encephalitic symptoms it commonly disappears in a day or two. It is of greatest service to watch the abdominal reflexes, as a most sensitive sign of diffuse cerebral disorder, while a more specific involvement of the motor pathway gives increased deep reflexes and the Babinski group of reflex signs.

While the course of the active disease process may be brief or prolonged, a few days or several weeks, the convalescence, even of the lightest cases, is surprisingly prolonged, dominated by cerebral fatigue, both mental and physical, and by cerebral irritability if the fatigue warning is not heeded.

Treatment has, of course, no positive procedures of curative value, but disregard of its few indications may aggravate the course unnecessarily. Physical and mental rest and quiet are

indubitably indicated from the moment of onset. The diet may be, should ordinarily be, a rather full bed diet; some cases tend to starve without forced feeding. Luminal is probably the best mental and undoubtedly the best physical sedative, in divided doses up to three grains a day, even for children if need be. Spinal drainage, occasionally or periodically, appears to give relief in some cases, the actual pressure being the best guide, though the need for relief of pressure can often be ascertained by routine observation of the ocular fundi. Recumbency and convalescent care have to be prolonged far beyond the surface indications; weeks are needed where days seem only to be indicated at the beginning of convalescence, and months where weeks would seem to be sufficient. Headaches, dizziness, mental and physical fatigue often show the error of a too early resumption of one's usual activity or occupation.

The prognosis is good for ultimate recovery, a small percentage of cases retaining some disabling symptoms, a slightly larger number showing persistent fatigue. The mortality has been given as high as 25% in several hundred reported cases, but I think that if all actual cases were recognized and reported the mortality would be much less. In our experience it has been less than 10%, including all probable cases, but the past winter showed more severe types than the preceding year.

I have tried to show that it is difficult at the present time to formulate a definite and exact clinical description of encephalitis that will be both specific and inclusive. The disease process is so variable in its extent and character that it produces an apparently limitless variety of syndromes and it is with realization of this feature of the disease that one best undertakes its diagnosis. In a way it is the best practical syllabus of neurology that has been produced and will undoubtedly bring us a more exact knowledge of cerebral physiology.

Dr. Kingsbury has been so kind as to consent to present the practical problems more in detail than I have done, and Dr. Osborn of the State Department of Health to discuss the epidemiology, both general and local, which I have left entirely to his more special knowledge and experience.

DISCUSSION.

ISAAC W. KINGSBURY, M.D. (Hartford): Dr. Waterman suggested that it would be interesting to discuss the milder types of this illness as seen in office work in contrast to those cases most attractive to the neurologists. In this connection I want to emphasize the probability that epidemic encephalitis is more widespread than is generally supposed.

The less severe type of case, yet possessing sufficiently characteristic symptoms to allow of diagnosis, is reasonably common. Such cases are either not bedridden at any time, or possibly for only a day or two at the beginning. The diagnosis rests upon one or more of the more characteristic signs such as a cranial nerve palsy, in the absence of syphilis, and in the absence of the causes of cerebral hemorrhage. We have seen a number of such cases largely through the courtesy of Dr. Smith and Dr. Borden.

The argument that there are a large number of cases not recognized is hardly capable of proof, but on the theory of probabilities, in a mild case, the chance does not seem great that the small areas of perivascular infiltration should coincide with the tiny centers, the involvement of which determines a cranial nerve palsy.

This past winter it has been our experience, and that of many other men with whom I have talked, that neuritis has been more common than usual, and also that neuralgic pain of a considerable degree of severity has more commonly than usual been associated with mild upper respiratory tract infections. This neuralgic pain has been generally over the distribution of the fifth nerve. One such case of particular severity eventually developed eye signs and ataxias, so that upon exclusion of syphilis, and her eventual complete recovery, the diagnosis of epidemic encephalitis was made. Had her symptoms abated earlier, the diagnosis would have been simply neuralgia, but the cause, nevertheless, would have been encephalitis.

Similarly, in such cases where the diagnosis rests on an ocular palsy, were that palsy lacking, Grip or some other loose term would have to be called upon for a name.

The following case, in abstract, is one of a number that Dr. Hutchison and I have seen that have added to the argument that epidemic encephalitis is more prevalent than would appear from the reported cases.

F. 40. Male. Single. Manufacturer. Of good family history. Habits exemplary. Venereal history and Bl. Wass. negative. Previous history free from "nerves". He was not overworked, nor was there anything to cause him to worry. Seen first in early April, he complained only of loss of interest in his work, constipation, loss of weight and sleeplessness, all of about ten weeks duration. His physical examination was normal, but further history was obtained that about twelve weeks before he had had a

slight cold in his head and throat, which was quite unusual for him. He stayed at home for a day or two; a little later there had been some blurring of vision of considerable duration, about which time he first became constipated. There had been a little twitching of the extremities for a day or two only. This was accompanied by the sleeplessness, and the loss of weight followed. He had not been ill enough to see a physician at any time.

This is clinically neurasthenia; but in the absence of a poor family history, or of a cause for worry, or of overwork, or of explanatory physical findings, during an epidemic of encephalitis, the latter diagnosis seems justified.

STANLEY H. OSBORN, M.D., C.P.H. (Hartford) [by invitation]: *Historical.* The early record of a disease which was apparently identical with the present epidemic encephalitis was reported in 1712 by Elias Camerarius, who published the account of the Tübingen epidemic characterized by somnolence with pronounced brain symptoms with frequent ptosis.

Ozanann, who published a history of epidemic diseases in 1835, mentions epidemics of "catarrhal fever" with "soporosite," as having existed in Germany in 1745, in Lyon in 1800, and in Milan in 1802.

In 1768 it was apparently reported by Lepecq de la Cloture, and again by a few observers following the 1888-90 influenza epidemic and named at this time "nona."

The present pandemic. The present occurrence of the disease was reported by Von Economo, who mentions its presence during the winter of 1916-17 in Austria near Vienna. Since its appearance in Austria, it has been reported from all of the continents, reaching England and France early in 1918 and by the end of that year cases had been reported in the United States. In 1919 it had reached Portugal, Spain, India, Italy, and by 1920 cases were reported from all continents and most civilized countries.

In Connecticut the cases have been reported as follows:

| 1918 | 1920 |
|------------------------|-------------------|
| No cases reported | January 0 |
| | February 4 |
| | March 9 |
| | April 7 |
| October 1 | May 8 |
| November 2 | June 5 |
| December 1 | July 0 |
| — | August 1 |
| Total for Year 4 | September 3 |

| | | | | |
|----------------------|----|----------------|------|--|
| October | 1 | | 1921 | |
| November | 1 | January | 3 | |
| December | 1 | February | 16 | |
| | — | March | 16 | |
| Total for Year | 40 | April | 8 | |

Seasonal distribution. The seasonal distribution of cases in Connecticut is typical of the prevalence in other countries situated in a like climate. The greatest incidence exists in the late winter and early spring months.

Etiology. There is little to say as to the exact cause of the disease. Different observers have inoculated monkeys with material taken from the upper respiratory tract of human cases and have claimed to produce the symptoms of the disease and same pathological changes that occur in human cases. We are thus reasonably certain that the virus causing the disease exists in the nose and mouth. The disease is generally classed in the group caused by the filterable viruses. Globoid bodies similar to those found in poliomyelitis are considered by some to be the causative agent, but no proof of this is yet at hand.

Association with influenza. Careful studies have been made to determine its relation with influenza. In a study of 181 cases in the United States in 1918 and 1919, only 46% gave a history of having had influenza. Such findings as this, with the presence of the disease in Austria in 1916 prior to the influenza, has definitely set the disease apart from influenza.

Connecticut Cases. An investigation of the 1921 cases in Connecticut is being carried out by the State Department of Health, and as these cases—though few in number—are characteristic of those in the entire country, I shall discuss only the cases in our State.

Distribution of cases in Connecticut. The 42 cases that have been reported up to May 14th of this year have been reported from the following communities:

| City or Town | Cases |
|-----------------|-------|
| Westport | 2 |
| New Haven | 7 |
| Bridgeport | 7 |
| Hartford | 2 |
| Norwalk | 2 |

and one each from Wallingford, New Britain, Rockville, Litchfield, Thomaston, Griswold, West Hartford, Roxbury, Manchester, Orange, Milford, Danbury, Newtown, Rocky Hill, Stamford, Waterbury, Bristol, Mansfield, Newington, Middletown, and Willimantic.

This indicates what has been noted elsewhere, the widespread character of the cases, a fairly even distribution depending on the population, with little or no tendency to outbreaks.

Age groups. The age distribution on the 38 cases whose ages are known is as follows:

| <i>Age Group</i> | <i>Cases</i> |
|-------------------------|--------------|
| 0- 9 years | 7 |
| 10-19 years | 8 |
| 20-29 years | 6 |
| 30-39 years | 7 |
| 40-49 years | 4 |
| 50-59 years | 3 |
| 60 years and over | 3 |
| .. | — |
| | 38 |

The age distribution is one of the factors in showing the difference between encephalitis and poliomyelitis, there being few cases of poliomyelitis over 30 years of age.

Sex. Of the 42 cases reported, 23 were males and 19 females.

Fatality. Of 27 cases, in which end results are known, 11 died, 5 recovered completely, 10 are practically normal and in one the recovery is incomplete.

Symptomatology. This has been covered by Dr. Waterman's paper, but it may be of interest to know that over 70% of the cases in the state show fever, headache, malaise, ptosis, tremors, restlessness, lethargy. Half of the cases show nausea, vomiting, disturbances of vision, difficulty in swallowing, stiff neck, delirium, blurred vision and mental changes. The lethargy lasted from about fifteen days in the average case to sixty-three days in the longest lethargy case reported this year.

Secondary or contact cases. There have been to date in Connecticut no secondary cases or contact cases reported. This may be due to the existence of mild cases, lacking the prominent symptoms of the disease.

The only marked outbreak in the world was reported in an orphan asylum in England, where twelve cases occurred in a home of twenty-one girls. Five of these cases were fatal.

Summary. 1. Epidemic encephalitis is spread by material from the nose and throat. 2. Contact cases are rare. 3. The disease is not a type of poliomyelitis nor a complication of influenza. 4. The present status of epidemic encephalitis shows the need for more data from all cases that occur to assist in gathering information that will assist in checking the spread of the disease.

Acknowledgment. I desire to express my appreciation to physicians of

Connecticut in filling out the questionnaire blanks that were sent them by the State Department of Health, and it is our hope that the Connecticut case records as they increase in number and thus in value will prove to be of assistance in controlling this disease.

MAX MAILHOUSE, M.D. (New Haven): I have made as many mistakes in diagnosis as Dr. Waterman, but he has probably seen more cases than I. I have changed my diagnosis in my first case in about a week, from tubercular meningitis to encephalitis; she has recovered with the exception of impairment of the use of one hand. You are all familiar with the usual picture,—first, headache, nausea, vomiting, oculomotor palsies and possibly facial paralysis on one side. A case which I saw yesterday looked like a typical chorea in a child four years of age. The patient was seen in consultation. The illness had been preceded two months before by scarlet fever. It looked as though it might have been an infectious chorea, but two weeks ago the child was seized with convulsions, vomiting and right hemiplegia, including aphasia; that was followed by difficulty in swallowing and loss of speech, and then general chorea,—undoubtedly a case of encephalitis. During this epidemic appeared something that has not been mentioned today, the occurrence of a very prevalent series of hiccoughs. I saw last fall two very severe cases, (I myself had an attack lasting for twenty-four hours) due to some infectious process.

PAUL WATERMAN, M.D. (Hartford): In closing the discussion I wish only to reiterate the warning which we have already received, that epidemic encephalitis will undoubtedly be an increasing professional and public problem and that all physicians must be alert to the possibility of its occurrence in its manifold forms. While it probably will not become a serious public problem epidemiologically, still there is the distinct possibility that uncontrolled and rapid transmission of the disease in a limited area may so increase its virulence as to make it a public menace of some account for one or two seasons at a time, for which our defense will lie in early and accurate recognition and notification in order that the State can watch its course.

Injuries of the Brain.

SAMUEL C. HARVEY, M.D., New Haven.

The title chosen for this paper, "Injuries of the Brain," implies a difference of viewpoint from that customarily taken and which I wish to make clear at the outset. If I were to say that I intended to discuss fractures of the skull it would be commonly understood at once what the discussion would be, for fractures of the skull per se from the time of the first recorded literature until the present day have been fully considered. Indeed in the Hippocratic treatise on "Injuries of the Head" there is a very able exposition of this topic which can scarcely be surpassed to the present time in its well-balanced opinion.

However, because the bony frame-work of the skull is a well understood structure and the brain, as regards function, even to-day a relatively poorly understood organ, emphasis has been laid on the former and the injury of the latter almost disregarded. Percival Potts, in the early nineteenth century, was perhaps the first to emphasize the point that the injury to the brain was the determining factor and not the type of injury to the skull itself. In a similar manner I wish to disregard in large part the injury to the bony framework and discuss in the main two things, the indication for operation in injuries to the brain and the types of operation needed, basing the consideration almost entirely on what we can learn of the damage done to the brain itself.

This group of patients is to-day a particularly important one because of its size. In a 90-bed service in the New Haven Hospital there are always present from two to five instances of some type of injury to the brain and I should judge easily 75% of these are caused by automobile accidents. So in the course of about one year and a half we have had in the neighborhood of 100 patients who fall in this group.

It is exceedingly difficult to determine the best procedure to carry out in such injuries and no dogmatic statement can cover all of them. If we operated upon all cases which showed definite

indication of injury to the bony framework of the head we would operate unnecessarily and probably with considerable damage upon at least nine out of ten, for a fracture of the skull means many times but little damage to the brain and sometimes no damage at all. To illustrate this point:—A young man had brought his head and right hand in contact with a high voltage wire. He fell to the floor and died on his way to the hospital. He had electric burns of the scalp and right hand and lacerations of the scalp. At autopsy the dura appeared normal and the brain also, except for a few minute hemorrhages along the vessels about the frontal lobe and under the surface of the cerebellum. There was no injury to the brain but the base of the skull showed fractures of the occipital, temporal and sphenoidal bones, and the posterior portion of the cella was torn almost free from the body of the sphenoid. The man died from the electric charge in all probability, but the damage to the brain from the fracture was exceedingly slight.

The converse may also be true and if we operate only on patients who show fracture of the skull, then we may miss some person in whom operation is indicated. For instance: a young adult male was struck and dragged by an automobile. He was brought to the hospital in a comatose condition. Respirations, 9 per minute, and Cheynes-Stokes in character. There was a divergent strabismus but the pupils were equal and small. The patient moved his extremities but the right side somewhat more easily than the left. Abdominal and patellar reflexes absent. Positive Babinsky on each side. Patient was very restless, temperature rose to 106, pulse 160 and he died twenty-six hours after admission, supposedly with a broncho-pneumonia. On post-mortem examination no fracture of the skull was found. The longitudinal sinus was thrombosed and thromboses extended into the cortical veins, particularly on the left side. A small subdural hemorrhage was found over the left frontal lobe. There was no broncho-pneumonia. The patient in all probability died from a brain injury, without any fracture of the skull.

It is easy to see our mistakes at post-mortem examination but it is not easy ante-mortem to determine on the proper procedure.

For instance, at a meeting last year of surgeons interested in neurological work, a boy with a fracture of the skull, who had been injured a few hours previously, was brought into the clinic. He was semi-conscious with slight right-sided weakness and a fluctuant swelling of the left posterior parietal region. Blood pressure 100, pulse 120, temperature 101. He was easily aroused, somewhat restless, and fifteen neurological surgeons, including some of the most eminent men in the country, consulted over the proper procedure to be undertaken. Two or three were for immediate operation; two or three for no operation at all, unless his condition showed some definite indication of compression of the brain. The remainder advised postponing operation and watching the case. The next morning the boy's condition had not improved and a decompression was done over the site of fracture where there was found some laceration of the dura and of the cortex. This was carried out under local anæsthesia and all that was accomplished was a decompression, inasmuch as there was no localized hemorrhage. The boy died on the third day of double pneumonia, which is so frequently a terminal condition even in fracture of the skull, and I am sure that this same group would still be divided in their opinion as to what should be done in a similar case.

In an analysis of about 100 patients whom I have had the opportunity of observing in civil practice and as many more in military practice, I have attempted to formulate some definite ideas concerning the classification of brain injuries.

The grouping attempted tentatively as a working basis consists of a clinical classification and is founded only to a relative extent on pathology. The ideal classification would be a pathological one, but this is no more applicable here because of our lack of knowledge of the traumatic pathology of the brain, than it is in the clinical classification of kidney disease. They have been grouped into five groups:

1. Concussion
2. Commotion
3. Localized compression
4. Generalized compression
5. Compound injuries,

and may be defined as follows :

Concussion is a temporary loss of function of the brain as a result of injury and is evidenced by temporary unconsciousness followed frequently by amnesia, headache and occasionally by vomiting, none of these things being persistent. Delirium, persistent vomiting, extreme restlessness, prolonged unconsciousness, slowing of the pulse, and disturbance of the motor and sensory functions do not occur as a result of simple concussion. There is, as far as we can recognize, no definite anatomical pathology for concussion.

Commotion is a concussion sufficiently severe to produce functional damage to the brain and in the more severe types anatomical changes such as multiple minute hemorrhages, contusion and laceration, although if these occur in situations such as to cause localized signs then the case will fall in the group of localized compression. It is evidenced, in addition to the other symptoms of concussion, by persistent and extreme restlessness or delirium or drowsiness or unconsciousness, or persistent headache. There is, however, no marked slowing of the pulse, persistent vomiting or signs of localized disturbance.

Localized compression represents a local injury done to the brain either by direct contusion, laceration, or hemorrhage into the brain or into its envelopes, or by the driving in of some portion of the skull. It is evidenced, first by the interruption of some function of the brain which can be recognized because of its localization in some particular area. Some such injuries may fall in the group of commotion because they occur in such portions of the brain as have no localizing function and consequently cannot be recognized clinically. It results then that such cases, with the exception of the depressed fractures, cannot be approached from an operative standpoint because the damage cannot be localized. If such injuries become progressively worse they soon pass into the group of general compression and it is consequently important to recognize the symptoms of local disturbance so that the operative approach may be made early.

General compression or what is perhaps more familiarly known as increased intracranial pressure is a sequence of commotion or

of a localized compression which is extending its effect to the entire cranial cavity. It is probably due to edema secondary to the primary damage to the brain, or to persistent hemorrhage; much more frequently in our experience, the former. It is evidenced by the signs of increased intracranial pressure, notably slowing of the pulse, vomiting, extreme headache, restlessness, delirium, unconsciousness and perhaps, after many hours, blurring of the optic nerve heads. It is more characteristically marked by the march of symptoms which in a typical case is pathognomonic. The patient has shown concussion or minor commotion, is doing well, then relapses with signs of increasing intracranial pressure. The classification can be best demonstrated by definite cases which I shall briefly report.

Cases of concussion are familiar to all and it is hardly necessary to go into an extensive discussion concerning them.

Commotion: This group necessarily covers a wide range and I wish to report several different types to illustrate the many aspects. First, an instance of commotion of a relatively mild degree, but yet distinct. The patient, who was a female, aged twenty-four, was thrown from an automobile at eleven o'clock in the evening and was unconscious for two hours, first arousing to vomit but having a complete loss of memory of the accident. She had headache and vomited for thirty-six hours and was drowsy for twenty-four hours. Lumbar puncture showed bloody fluid with pressure not increased. Careful examination showed no evidence of increased intracranial pressure or of localizing injury. She had, however, what was of little consequence as regards the degree of the injury to the brain, a fracture of the skull, in the left fronto-temporal region, persistent bleeding from the left ear, subconjunctival hemorrhage in the left eye and ecchymosis of the left orbit. The X-ray was suggestive of a fracture in the left middle fossa. This is a case of commotion bordering on simple concussion and only separated from it by the more persistent symptoms.

A more severe type of commotion. The patient, a girl aged fifteen years, seven hours previous to entrance to the hospital had fallen, striking the left side of her head on the pavement. She

lost consciousness at once, but on entering the hospital was semi-conscious, extremely restless, approaching delirium, and irritable. She complained severely of headache for five days and up to the time of her discharge two weeks after entrance she still showed marked mental irritability and complained at times of severe headache. At no time did she show any evidence of distinct increase in intracranial pressure or signs of local damage, although the pulse twenty-four hours after entrance had a tendency to slight slowing. There was present, however, the ecchymosis over the left mastoid which is almost diagnostic of fracture of the skull in this region.

The third case illustrates commotion of a considerably greater degree and led to death in about forty-eight hours. A boy of five years fell from the third story window and was brought immediately to the hospital. He was unconscious and on careful examination showed nothing indicating a localized injury. Pupils were dilated and reacted to light and the eyes were turned to the right. The pulse was irregular, running from 120 to 140 per minute. There were no paralyses and the knee jerks were active and equal. Lumbar puncture showed bloody fluid under normal pressure. Patient was partially conscious. On the second day temperature rose to 108, pulse 100 and he died forty-eight hours after admission. At autopsy the meninges were hemorrhagic but there was no definite localized hemorrhage. There was extreme congestion of all the vessels over the cortex but no change in consistency in the brain. There was present also a fracture of the left side of the skull over the parietal, temporal and occipital regions with a slight depression of the bone and laceration of the dura and cortex beneath. On section of the brain in the region of the fracture there was definite hemorrhage into the brain with softening of the surrounding area. On microscopic section there was evidence of small hemorrhagic areas throughout the brain with some early necrosis. Neither the depression, nor the fracture nor the laceration of the brain were in themselves sufficient to produce death. Consequently this must have been due to the widespread minute damage to the brain and particularly to the basal centers.

Lastly a case of extreme commotion leading to almost imme-

diate death. A woman aged sixty-three was struck by a street car and was brought immediately to the hospital. She died a few minutes after admission. She showed no localizing signs aside from the right pupil being somewhat smaller than the left. Lumbar puncture gave bloody fluid under slightly increased pressure. Respirations, 40 per minute. At autopsy there was a considerable amount of unclotted bloody fluid under the dura but not sufficient to have caused death, this being largely cerebrospinal fluid. There were some small hemorrhages in the left frontal region about 1 cm. beneath the surface. On microscopic section the small vessels of the brain were found to be markedly dilated and small areas of hemorrhage were seen around them. This illustrates commotion with a minimum of anatomical damage which led, however, to almost immediate death.

I wish particularly to call your attention to the fact that these cases showed no localizing signs or signs of increased intracranial pressure and yet in two the outcome was death. There was no indication for operative interference because such operative procedures are directed only to relief of local or general pressure, which was not present, as confirmed at autopsy.

Localized Compression: A girl aged twelve years while at play fell, was not unconscious but vomited several times. After about one hour it was noticed that the right arm twitched, and that she was unable to talk. A short time later she was found to be unconscious. She was brought into the hospital in this condition. As far as could be determined by examination, she had paralysis of the right arm, but was otherwise negative. Lumbar puncture showed a clear fluid under moderately increased pressure. She was observed carefully and her pulse at one time was as low as 62. A bone flap was turned down over the left parietal region and a large blood clot originating in the torn middle meningeal artery was exposed and evacuated. The recovery was uneventful, and the patient had no further symptoms.

A second case. A male aged forty-five years was admitted by the Police Department with no history. He was unconscious, pulse rate 58 per minute and in such condition that satisfactory examination could not be made and he died very shortly after-

wards. Autopsy showed that on the left side of the head there was a clot containing about 250 cc. of blood lying extra-dural. There was also a fracture in the same region. Early observation in this case would undoubtedly have shown localizing signs.

General Compression: A boy aged fourteen fell from a bicycle striking his head on the pavement. He was brought to the hospital unconscious with a large hematoma in the left occipital parietal region. He was vomiting. Pupils were equal and there was nothing localizing whatsoever. On admission pulse was 72 but dropped a short time afterwards to 50. He was immediately decompressed under local anæsthesia and nothing in particular found except considerable pressure, and a fissure fracture of the left temporal bone. He rapidly became worse and died twenty-four hours later. At autopsy there was found a laceration of the right temporal lobe and many minute multiple hemorrhagic areas scattered throughout the brain. The story here suggests, first an extensive commotion with laceration; a rapid increase in size of the brain as a result of this, the relief of intracranial pressure by decompression, but death from the result of extensive commotion.

Compound Injury: A boy aged eleven was kicked in the forehead by a horse, lacerating the scalp badly and driving in the frontal bone almost completely across the forehead and carrying with it manure from the horse's hoof. He showed no localizing signs or indication of general compression, or even of commotion. The wound was excised down to the bone, laying back large flaps to get an adequate exposure. The damaged bone was likewise excised by technique to be shown later and the lacerated brain and dura carefully washed with salt solution until macroscopically clean. The greatest care was used throughout the procedure to avoid any further contamination. Fragments of bone which had been driven in were removed. The wound was then sutured completely and the boy obtained per primum healing and left the hospital sixteen days later, well, aside from a bone defect in the frontal region.

Working with this classification, then, what is the indication for operating? It is apparent from the discussion previously given

that in instances of concussion and of commotion it is not advisable to operate. In the latter case if the commotion is slight or moderate the patient will probably recover. If profound the patient will die. It is only when commotion shows signs of increasing intracranial pressure, the most characteristic being the distinct slowing of the pulse, that one may interfere with a hope of some success. Even in these cases if there has been sufficient commotion to lead to edema and considerable increase of intracranial pressure one must view the outcome with some pessimism.

It can be said that the operation of decompression in itself, in competent hands, is harmless, but it is necessary to bear in mind that in order to carry it out the patient must be either unconscious or in a condition such as to enable one to use local anæsthesia. I firmly believe that in the absence of localizing signs or evidence of general compression, the administration of ether to a patient with extensive damage to the brain may tip the balance and cause greater harm than the operative procedure can do good.

In the groups of general and localized compression there is no question but that operative interference should be carried out as early as possible, and it is merely a question of what procedure should be adopted.

What does one attempt to attain by operation? Firstly, the exposure of a hemorrhage; secondly, the relief of intracranial pressure.

The hemorrhage, if massive and of material effect, occurs nearly always as a result of rupture of the middle meningeal artery. This vessel can be exposed throughout its entire course by the sub-temporal decompression of Cushing, and indeed an exploration of two-thirds of the cerebral hemisphere can be carried out through such a decompression. In addition, it is the only operative procedure for the relief of intracranial tension because it provides such relief over the temporal lobes at a point where the bulging brain is relatively functionless, and provides also, with the reconstruction of the temporal muscle and fascia, an adequate support, thus precluding any possibility of herniation.

The only group in which a different approach is necessary is that in which the injury is compound and where the lessons of traumatic surgery during the war have supplied a well standard-

ized and adequate procedure. This means a most scrupulous debridement or excision of the injured scalp, with enlargement of the wound, in such a way as to provide adequate exposure of the damaged bone. The bone itself is then treated by the same principle and is excised, keeping all instruments away from the central injured portion which is dirty. The dura and brain are washed with salt solution until a thorough cleansing is obtained. Indriven fragments of bone are carefully sought for, possibly with the finger at times, or with a very soft small rubber catheter, but always with the utmost gentleness. If the operation is done within twelve hours, in the great majority of instances it is best to suture the wound. It will generally heal per primum. If done later, or in the presence of infection, provided the operator knows how to care for a hernia cerebri, it is best to leave the wound open.

The treatment of the hernia cerebri, both prophylactic and actual, is simple but rarely employed. The brain is covered with rubber tissue, no gauze being allowed at any time to touch it. The skin edge is cleansed daily with alcohol and bichloride and the brain irrigated very gently with salt solution. As soon as the brain begins to protrude, a "doughnut" is placed about the herniation in such a way as to prevent pressure upon it. With such meticulous care at least 50% of brain herniae will in the course of one to two weeks recede, become covered with granulation tissue and heal. Without this same care something like 90% will fungate and lead to a lethal outcome.

Conclusions:—(1) A classification of brain injuries is proposed consisting of concussion, commotion, localized compression, generalized compression, and compound injuries. (2) It is important to distinguish clinically between the first two and the last three groups. The former are not amenable to operative interference; in the latter it is urgently required. (3) For the third and fourth groups a Cushing sub-temporal decompression is the first choice. For the last group extensive and careful debridement with primary suture, if possible; if not possible, then a proper protective dressing, which will avoid the usual disastrous results accompanying herniation.

DISCUSSION.

DR. H. G. JARVIS (Hartford): Dr. Harvey has covered the subject quite thoroughly, but there are a few points I would like to bring out a little clearer. The important point is to determine whether an operation is indicated, and if it is, what is the best time to perform it. One thing is sure, no patient should be operated on when he is in a state of shock as shown by fibrillation of the heart, etc. With a patient not in shock all depressed fractures should be operated on; either the depressed piece removed or elevated. In regard to drainage, we obtain much better results if we leave a small drain just under the skin; irrespective of how good the hemostasis is, there will be a little blood collect and form a clot, and that will often become infected.

I agree with Dr. Harvey that "Fracture of the Skull" is a poor term. We are not interested in whether there is a fracture or not, provided it is not depressed, but the damage the brain has suffered. Radiographic negatives show up a depressed fracture, while repeated neurological examinations determined for us when we shall do a decompression.

One other point. We have had four patients in the Hartford Hospital with birth injuries to the brain, which have had a decompression mortality of 50%. In this type of brain injury there is some advantage to be expected by doing a decompression and relieving the intracranial tension. These cases are caused by trauma or by the so-called bleeding of the newborn. We have separated these groups on their coagulation time. If that is normal, we consider it a traumatic case. We should thank Dr. Harvey for bringing up this interesting subject this afternoon.

DR. W. E. HARTSHORN (New Haven): It is difficult to dissociate brain injuries and fractures of the skull. Unquestionably, however, they often do occur without fracture. These patients must be kept under most careful observation. Slowing pulse, irregularities in the respiratory rhythm, increasing blood pressure, dilatation of the retinal veins, blood in the cerebro-spinal fluid all point to pressure on the medulla. Sub-temporal decompression performed sufficiently early will often relieve these symptoms and save the life of the patient. I do not intend to underestimate the danger of this operation, but wish to emphasize the fact that it is frequently done too late rather than too early after trauma and too infrequently rather than too frequently. With careful technique it certainly is attended with little risk to the patient, in carefully selected cases, compared with the danger of delay with a clinical picture of increasing intra-cranial pressure.

DR. JARVIS (again): The only remark I wish to make is on what the last speaker said about Dr. Sharpe's work. I feel, on looking over his

work, that perhaps he does too many decompressions, and that many of them might do better and have a better convalescence if left alone.

DR. HARVEY (closing): There is little to add to the remarks of Dr. Jarvis, except to emphasize his last statement, in which Dr. Hartshorn concurred, that many cases of brain injury which are amenable to surgical treatment are not recognized sufficiently early and not operated upon. It requires a finely developed surgical judgment to determine this particular group. One should not, on the other hand, operate as a routine in all cases of brain injury, as is apparently done by some enthusiasts.

PROGRAMS OF COUNTY
MEETINGS.

Programs of County Meetings.

FALL (SEMI-ANNUAL) MEETINGS.

FAIRFIELD COUNTY.

Hotel Green, Danbury, October 19, 1920.

PAPERS :

- Primary Suture of Wounds. D. C. Patterson, M.D., Bridgeport.
The Mosquito as a Health Problem in Connecticut. W. E. Britton, Ph.D., New Haven.
Radium Therapy in Uterine Disease. W. A. LaField, M.D., Bridgeport.
Studies in the Pathology of Respiratory Diseases. M. C. Winternitz, M.D., New Haven.

HARTFORD COUNTY.

Cheney Hall, South Manchester, October 26, 1920.

PAPERS :

- Mosquito Extermination in Connecticut. Wilton E. Britton, Ph.D., State Entomologist, New Haven.
Relations Between Physicians in Industry and General Practice. Harry R. Sharpe, M.D., Manchester; William R. Tincker, M.D., South Manchester; C. Charles Burlingame, M.D., South Manchester.
The Application of War Methods to the Treatment of Fractures in Civil Life. Joseph A. Blake, M.D., New York.

LITCHFIELD COUNTY.

The Club House, Washington, October 5, 1920.

PAPERS :

- Mosquito Extermination in Connecticut. Wilton E. Britton, Ph.D., New Haven.
Control of Communicable Diseases. S. H. Osborn, M.D., State Department of Health.
The Mining and Manufacture of Radium. (Motion Picture.) Radium Chemical Company, Pittsburgh, Pa.
Therapeutic Uses of Radium. A. C. Heublein, M.D., Hartford.

MIDDLESEX COUNTY.

Connecticut State Hospital, Middletown, October 14, 1920.

(in conjunction with the Thirteenth Semi-Annual Meeting of the Connecticut State Medical Society)

PAPERS:

Address of Welcome by the President, Middlesex County Medical Association. Jessie Weston Fisher, M.D., Middletown.

Response to Address of Welcome by the President, Connecticut State Medical Society. George Blumer, M.D., New Haven.

Mosquito Extermination in Connecticut, Wilton E. Britton, Ph.D., New Haven.

The Commitment of the Insane. Roy L. Leak, M.D., Middletown.

Demonstration of Specimens, Photographs and Charts. John I. Wiseman, M.D., Middletown.

Recent Advances in Plastic Surgery of the Eyelids and Orbit. John M. Wheeler, M.D., New York City.

NEW HAVEN COUNTY.

Barry Hall, Waterbury, October 28, 1920.

PAPERS:

President's Address. B. Austin Cheney, M.D., New Haven.

Removal of the Injured Semilunar Cartilage. James L. Moriarity, M.D., Waterbury.

Results of the Treatment of Pernicious Anæmia by Transfusion. Arthur B. Dayton, M.D., New Haven (by invitation).

The Mining and Manufacture of Radium. (Motion Picture.) Radium Chemical Company, Pittsburgh, Pa.

NEW LONDON COUNTY.

The Crocker House, New London, October 7, 1920.

PAPERS:

Public Health and the Medical Practice Act. D. Chester Brown, M.D., Danbury.

The Significance of Retinal Changes in Systemic Diseases. Thomas A. Woodruff, M.D., New London.

The Mining and Manufacture of Radium. (Motion Picture.) Radium Chemical Company, Pittsburgh, Pa.

TOLLAND COUNTY.

Johnson Memorial Hospital, Stafford Springs, October 19, 1920.

PAPERS:

- Treatment of Deformities Following Infantile Paralysis. Joseph F. O'Brien, M.D., Hartford.
The Mining and Manufacture of Radium. (Motion Picture.) Radium Chemical Company, Pittsburgh, Pa.
Therapeutic Uses of Radium. A. C. Heublein, M.D., Hartford.

WINDHAM COUNTY.

Attawaugan Hotel, Danielson, October 21, 1921.

PAPERS:

- Eczema. A. D. Marsh, M.D., Hampton.
Infant Feeding. Nathaniel Hibbard, M.D., Danielson.
Medical Inspection of Schools. G. T. Lamarche, M.D., Putnam.
Mosquito Extermination. W. E. Britton, Ph.D., New Haven.

SPRING (ANNUAL) MEETINGS.

FAIRFIELD COUNTY.

Hotel Stratfield, Bridgeport, April 12, 1921.

PAPERS:

- Transfusion in Infectious Processes. Arthur B. Dayton, M.D., New Haven.
Acute Osteomyelitis. Samuel C. Harvey, M.D., New Haven.

HARTFORD COUNTY.

The Hunt Memorial, Hartford, April 5, 1921.

PAPERS:

- The Problem of the Underweight Child. Harry L. F. Locke, M.D., Hartford.
The Pedograph as an Aid in Diagnosis. Robert M. Yergason, M.D., Hartford.
Perforative Lesions of the Stomach and Intestines. P. F. McPartland, M.D., Hartford.
Advances in Radiology. D. J. Roberts, M.D., and Arthur C. Heublein, M.D., Hartford.

LITCHFIELD COUNTY.

Hotel Winchester, Winsted, April 26, 1921.

PAPERS :

President's Address. Frederick W. Wersebe, M.D., Washington.

Address by President of State Society. George Blumer, M.D., New Haven.

Latent Sinusitis. Charles H. Carlin, M.D., Torrington.

MIDDLESEX COUNTY.

Chaffce Hotel, Middletown, April 14, 1921.

PAPERS :

Obstruction of the Vesical Orifice Other than Those Caused by Neoplasm of the Prostate. Winifred O. Wilder, M.D., Springfield, Mass.

Experimental Studies on the Etiology of Influenza. Peter K. Olitsky, M.D., New York City.

NEW HAVEN COUNTY.

Grace Hospital, New Haven, May 5, 1921.

PAPERS :

The Acute Surgical Abdomen. Edwin H. Johnson, M.D., Naugatuck.

Thrombo-Angitis Obliterans. Samuel J. Goldberg, M.D., New Haven.

Acute Osteomyelitis. Samuel C. Harvey, M.D., New Haven.

NEW LONDON COUNTY.

State Tuberculosis Sanatorium, Norwich, April 7, 1921.

PAPERS :

What about a Cure or Preventive of Tuberculosis? Stephen J. Maher, M.D., New Haven.

Errors in the Diagnosis of Pulmonary Tuberculosis. Joseph Walsh, M.D., Philadelphia, Pa.

Stereoscopic X-Ray Studies of Chest Diseases. From the X-Ray Laboratory of the Norwich State Tuberculosis Sanatorium.

TOLLAND COUNTY.

The Rackville, Rockville, April 19, 1921.

PAPERS :

Endocrine Disorders. Paul Waterman, M.D., Hartford.

The Physician and the Case of "The Community." Stanley H. Osborn, M.D., Hartford.

WINDHAM COUNTY.

Putnam Inn, Putnam, April 21, 1921.

PAPERS:

Public Health Administration and the Physician. John T. Black, M.D.,
Commissioner of Public Health.

Medical Inspection of Schools. G. T. Lamarche, M.D., Putnam.

OBITUARIES.

Rollin Alanson Curtis, M.D.

WILLIAM B. COGSWELL, M.D.

Dr. Rollin A. Curtis was born in Waterbury, Connecticut, in 1865 and graduated from the High School in 1882, and from Wesleyan Academy at Wilbraham, Massachusetts, in 1884. In 1893 he graduated from New York University, and served as interne in Bellevue Hospital from 1893 to 1895. In 1895 he began the general practice of medicine in Bridgeport, Connecticut; retired in 1908, making his home in Stratford, Connecticut.

He was a member of St. John's Lodge No. 8, Free and Accepted Masons; Jerusalem Chapter No. 13, Royal Arch Masons; Jerusalem Council No. 16, Royal and Select Masters; Hamilton Commandery No. 5, Knights Templar; Pyramid Temple, Ancient Arabic Order Nobles of the Mystic Shrine, and had taken all the degrees to the thirty-second in Scottish Rite Masonry. He was a member of Nosahogon Lodge No. 21, Independent Order of Odd Fellows, of Waterbury; and of Tunxis Tribe No. 10, Improved Order of Red Men, of Waterbury. He was a member of Cupheag Club of Stratford and Seaside Club of Bridgeport. In religion, he was a Protestant; in politics, a Republican.

He married, in 1904, Catherine Theresa, daughter of William and Catherine Colbert, of Seymour, Connecticut. He had one child, Catherine Caroline, born October 27, 1906.

He died January 28, 1920, from cerebral hemorrhage.

James B. Dinnan, M.D.

STEPHEN J. MAHER, M.D.

He was only thirty-eight years old. He had been practicing medicine only thirteen years. For ten of these years his professional activities had been confined to a special institution for a special disease. During his short life he had been able to acquire but a very modest amount of money. He knew not how to fawn on the rich or the eminent. He belonged to no clubs. He wasn't expert in politics. And yet, when he died of typhoid fever last October in his cottage on the face of the Meriden mountain, all who knew him felt that, as one prominent state official put it:

"By Dr. Dinnan's death, Connecticut loses one of that small group of her most useful citizens whom it is almost impossible to replace."

This was true, not so much because he was an able doctor: there are many able doctors in Connecticut. Nor because he was a saint, or a prophet, or a genius: he wasn't any of these things, any more than you or I. It was true because of what he did for the state since he was appointed superintendent of the Meriden State Tuberculosis Sanatorium only ten years ago,—did willingly, thoroughly, and without ever a look at the clock.

His history before that time may be summed up as follows: He was born in New Haven in 1871. His father was John J. Dinnan, the proprietor of the well known central electrical supply store of the city. His mother's maiden name was Alice T. Reilly. She was a sister of Dr. James M. Reilly of Cedar Street. Dr. Dinnan was a graduate of the New Haven High School, and the Yale Medical School (1904) and of the City Hospital, Blackwells Island, New York. He began practice in New Haven, soon moved to Meriden, married Miss Dora Tracey of that city, and for a couple of years, lived the exciting and laborious but worthwhile life of the popular young doctor in general practice.

And then came the State's great movement to establish Tuber-

culosis Sanatoria; the absorption by the state of the struggling little local institution at Undercliff; and the need of choosing a superintendent for the new institution. When it was announced that young Dr. Dinnan had been appointed to the new position there was considerable shaking of heads and shrugging of shoulders both by Dr. Dinnan's friends and by some of the leaders of the new tuberculosis movement,—by the former because they felt he was sacrificing his fine young practice for a position in which he might not make good, and which, at any rate, would probably soon be considered a spoil of politics,—and by the latter, because they would have preferred a superintendent who had already made a name in tuberculosis work.

But the result proved that the choice of Dr. Dinnan was the best possible. His institution was no sooner opened than the poorhouses of the state dumped into it all of their human wrecks that their managers could, by any hook or crook, consider tuberculous. These undesirables were to be mixed in the wards with the decent, cleanly moral patients that private physicians sent to the institution. There was no precedent for such a situation. Dr. Dinnan had, in this emergency, several great advantages. He was young, energetic, confident, and with nothing to unlearn. Of course, he had many troublous hours. But he learned fast and it was not long before the most skeptical of his critics recognized that he was master of the situation and was managing the institution in a way that was a credit to himself and the state and that the discipline and the clinical results at Meriden were unsurpassed anywhere. His executive ability was really very unusual and during his ten years service, frequent drafts were made upon it by the State Tuberculosis Commission for the solving of difficulties that arose in other sanatoria. In fact, twice, for short periods, he was acting superintendent of two sanatoria at the same time.

His development on the scientific side was no less unusual. Recognizing that his lack of familiarity with the most recent laboratory technique interfered seriously with his ability to satisfactorily study the important tuberculosis problems that stared at him from every patient in the institution, he came down to Yale,

sat in with the class of youngsters studying bacteriology, worked hard, took a special course, and was then able to do his interesting work on "Pneumococci as the cause of hemoptysis in tuberculosis," and on "Blood pressure in tuberculosis," and on "Heliotherapy in tuberculosis," and on other phases of the great problem.

His remarkably rapid development during the last years as a student of tuberculosis was evident not only to us in Connecticut but it had attracted the attention of most of the prominent National leaders of the great campaign against consumption.

Besides his wife, he leaves two daughters, nine and seven years old, one son four years old, and three sisters. He was a member of all the local, State and National Medical Associations and Tuberculosis Associations, and at their meetings his contributions of papers or discussions were always well received.

Enthusiastic in all his undertakings, and with the gift of imparting his enthusiasm to his fellow workers; capable of most surprising industry and persistence in the study of medical and institutional problems; frank, with a boyish promptness of decision and an honesty of mental processes that became well his erect and towering figure; defiant of danger, but tender of heart; ready for argument but open to reason; loyal to friends and forgiving to foes; proud of his profession and jealous of its honor; and withal a man, a man who irradiated cheer and confidence wherever he went,—is it any wonder that we whose friend he was grieve that he has gone?

Edward Wilson Dupee, M.D.

JAMES L. GILDAY, M.D.

Edward Wilson Dupee was born in New Haven, Conn., on August 15th, 1872. When he was six months old his parents removed to Bridgeport, where he remained until his death, Sept. 29th, 1920, at the Bridgeport Hospital.

He was educated in the public schools and graduated from the Bridgeport High School.

After graduation, he entered the drug business, where he remained for several years; he was one of the youngest registered pharmacists in the city.

The medical profession being his goal, he graduated from the Baltimore Medical College in 1900. He served an internship in the Bridgeport Hospital, and as surgeon at the Emergency Hospital.

He was a member of the Bridgeport, Fairfield County, State and American Medical Associations.

Dr. Dupee was devoted to his home, his work, and possessed a genial disposition; as a physician, he was capable and successful.

Charles Edwin Hill, M.D.

WILLIAM H. JUDSON, M.D.

Dr. Charles Edwin Hill was born in East Killingly, Conn., December 30, 1853 in the house then known as Stone's Tavern, now known as the Hotel, and moved in to his late home when about two years of age.

He was the son of Dr. Edwin Allen and Sarah Janet (Farrar) Hill. His early school days were spent here. At about the age of thirteen he entered a private school in Danielson located in "Liberty Hall." This school was taught by two men by the name of Brown. One was known by the name of Ned Brown and the other as "that other Brown." I think one was an Episcopal minister. From there he went to Lapham Institute, No. Scituate, R. I. as his father and mother did before him. When about seventeen he entered Phillips Academy, Andover, Mass., graduating in eighteen-seventy-two. After graduating from Phillips Academy, Andover, he entered Yale and graduated in the class of '76. (According to the class history it was a most wonderful class, no failures in it, they all made good. It contained such men as President Hadley of Yale, the late Dr. Everett J. McKnight of Hartford, Otto T. Bannard of New York City and many others.) After leaving Yale he decided to take up the study of medicine so spent three years in Harvard Medical School, graduating in the class of '79.

I think he commenced to practice with his father immediately after and continued until he had a shock September 28, 1918. He kept up his office practice till the very end which came September 25, 1920.

He served on the Board of Education for a number of years, was a member of the County, State and American Medical Associations, and also the various Masonic bodies.

Geology and Ancient Life was his hobby and he possessed a large collection of fine specimens of rocks and minerals. In his earlier days he travelled quite extensively, had visited about three-fourths of our states and some parts of Canada.

After having cataracts on both eyes, he took up farming with the same thoroughness he did everything else, making a specialty of popcorn, winning many prizes and blue ribbons; at one time taking the sweepstake for all New England.

Dr. Hill was a man who was up to the times until his eyesight failed him a few years ago, and even since then has kept familiar with all modern methods both in technique and results, having a good library and all kinds of modern instruments. He was of a retiring nature and none except those who knew him well were aware of his richness of knowledge.

He leaves a wife and seventeen-year-old son to mourn his loss. As a Mason we feel his loss as he could fill any chair in the lodge even up to the Temple just from memory.

Treby William Lyon, M.D.

EDWIN P. PITMAN, M.D.

Dr. Treby William Lyon was born in New London, Conn., June 6, 1872. He was the son of Charles H. and Addie Williams Lyon, an old New London family.

He was a graduate of the New London Grammar and Buckley High Schools. He entered Yale Medical School in 1899.

During his Easter vacation, of the first year, he developed typhoid fever. His recovery was so slow that he was obliged to lose a year. He graduated in 1904.

He spent two years in Long Island College Hospital, then went to Elizabeth Hospital, Elizabeth, N. J., from which institution he obtained his diploma.

After leaving Elizabeth Hospital, he returned to New Haven and opened an office on Broadway. Within a year, he moved his office to 412 Dixwell Ave. He continued in active general practice for some years.

During the years 1911 and 1912, he developed multiple adenomata. There growths were numerous throughout the colon, sigmoid and rectum. The pain and exhaustion from this disease was so great, that in the summer of 1912 he went to Dr. Lynch, of New York, for operation. Dr. Lynch did a right inguinal colostomy. This opening was never closed during the remaining eight years of his life.

Dr. Lynch thought so highly of his professional ability, that he took him into his clinics in the Polyclinic and elsewhere. Dr. Lyon enjoyed exceptional advantages during the year he spent with Dr. Lynch. Had his health permitted, he could have undoubtedly remained in New York and developed into a rectal specialist. His disease, however, caused daily and almost constant suffering, so that after his year with Dr. Lynch, he returned to New Haven.

On his return, he resumed practice at 193 York St. During the remaining years of his life, Dr. Lyon's activities were more

and more devoted to the practice of his specialty. That he was broadly read and well informed in general medicine, as well as in his specialty, is known by all whose privilege it was to meet him professionally.

During the last eight years of his life, he worked in the General Medical Clinic of the New Haven Dispensary. Shortly before his death, he assumed charge of the tubercular clinic in Grace Hospital.

On Wednesday, June 9th, he drove his automobile to New London, to attend a small G. U. clinic, of which he had charge, returning on Thursday the 10th. He was in great pain all the way home. His parents, who accompanied him, tried to dissuade him from attempting the trip but he pluckily continued, reaching home in the afternoon.

He took to his bed on that same afternoon, suffering from septicæmia, which was undoubtedly aggravated by the trip to New London and back. From the outset, there was no hope. The progress was rapidly downward to the end, which came early Monday, June 14, 1920.

Even in the midst of suffering so terrible that opiates were constantly required, he showed that same thoughtfulness for the comfort of those about him, which so endeared him to his friends.

Dr. Lyon was a fine scholar, one who, had his health permitted, would have gone far. He was an honorable, Christian gentleman, of whose charities few were aware. He was a friend whose loss is inexpressible. A life of constant suffering, he left nothing but good fellowship and cheer along the whole journey. After life's fitful fever, he sleeps well.

There are but few of whom it can so truly be said, "None knew him but to love him, none named him but to praise."

Lawrence Dillon Neary, M.D.

HARRY B. HANCHETT, M.D.

Lawrence Dillon Neary was born in Naugatuck, Conn., Jan. 22, 1888. He graduated from the Naugatuck High School and later from Georgetown University in 1913. For two years he was an interne in various New York hospitals, and later took a special course in treatment of contagious diseases at the Public Health Hospital in Brooklyn, N. Y. For a short time he was associated with Dr. D. D. Reidy in Winsted. He then established an office in Torrington in 1916. His wife died in 1917, leaving an infant son, Lawrence Ellsworth. He was a member of the Connecticut Medical Society, the Litchfield County Medical Association, Court Unity, Foresters of America of Naugatuck, Court Lyman, Fourth Degree, Knights of Columbus, and Washington Pride Circle, Companions of the Forest, Torrington.

In 1918 he contracted influenza and pneumonia, from which he never completely recovered. He gave up his practice the following April owing to poor health. He died June 1, 1920.

Theodore Raymond Parker, M.D.

CLARENCE E. SIMONDS, M.D.

Knowing well the sincere modesty of the man and his noble devotion to human service, it will be my endeavor to record a few facts in the life of one of our best known members.

Theodore Raymond Parker was born in the town of Montville, Conn., on the 19th day of July, 1856. His parents were Augustus A. and Harriet (Dolbeare) Parker. He had one sister who died in Palmertown, Conn., while engaged as a public school teacher -- while Dr. Parker was practicing his profession in Columbia, Conn.

Dr. Parker's early education was attained in the schools of his native town after which he went to the Norwich Free Academy, graduating from there in 1876. After spending one year in the office of Dr. L. S. Paddock, of Norwich, Conn., he took up a course of study in the Medical Department of Yale University, spending two years there, and the last year of his medical education at the Medical Department of New York University, from which he graduated in 1880. He immediately took up the practice of medicine in Columbia, Conn., remaining there three years, from which place he went to Willimantic, Conn., where he remained until his death.

Dr. Parker enjoyed one of the largest practices in Eastern Connecticut. He was highly successful, a man of sound, discriminating judgment in his practice; but even more valuable was the influence of his personality. He radiated good cheer and confidence, and in serious cases he would inspire courage. He was purely an internist, never attempting surgery, but in later years he was much in demand as an anæsthetist, in which he was very proficient.

He toiled day and night for practically forty years, and it was only in recent years that he allowed himself a short respite in the Maine woods in September of each year. Even these vacations were chiefly beneficial to him because after such a rest he could resume his work with new joy and vigor.

While his vocation was the practice of medicine, his avocation was hunting and fishing, and in season he would manage to steal an hour or two in the woods or at the brook, and rarely came back empty handed. Dr. Parker was a wonderful companion on these trips, and took an active interest in the promotion of game culture and in protective game laws.

While, of course, he could never find time for public office, he took an active interest in public affairs, and could discuss them with the same discriminating intelligence that characterized his professional work.

About two years ago he received the first warning that he was approaching the limit of his strength, but he would not give up. The thought of inaction was intolerable to him. Although aware that his strength was failing, Dr. Parker met the civilian war emergency without flinching; also the unprecedented demands of the last winter. Here was the true soldier spirit, in marked contrast to that craze for big profits and pleasure seeking, or for higher wages and shorter hours, which has so woefully embarrassed and burdened civil life.

"Dr. Parker was a man of deep religious conviction. He held to the faith of his fathers, and in no narrow creedal sense, but with a deep sense of man's obligation to God, and to faithful service for his fellowman." It will be a long time before the precious memory of his wise counsel, his loyal friendship, and his faithful, self-sacrificing service, will cease to exert a definite and positive influence for good in the community.

To those of us who knew Dr. Parker in his home, nothing need be said of his charming and delightful home life. On the 17th of last July, after a short illness of myocarditis, the overworked and tired heart ceased to function, and a loved husband, devoted father, a dear friend, and a beloved physician laid himself down to rest. Besides his wife he leaves a son to honor his name and emulate his virtues.

William George Reynolds, M.D.

HOWARD S. ALLEN, M.D.

Dr. William George Reynolds died at his home in Woodbury, December 1st, 1920, following an illness of four weeks duration. It was the culmination of a long standing mitral disease under the burden of which he had practiced for twenty-two years.

His death was not expected although his friends had noticed that he was not in his usual health during the summer. However, he kept at his work till a sudden attack of auricular fibrillation caused him to take to his bed, from which he was destined never to rise. He met the final call with the same fortitude that he had shown through the previous years, in caring for a large practice, the arduous duties of which would have often discouraged a stronger man.

Dr. Reynolds was born in Springfield, Mass., April 8th, 1871. His parents dying shortly afterward, he went to Watertown where he spent his boyhood. At the age of eighteen he entered the Moody School at Northfield, Mass. Graduating from there, he entered Yale University, took the degree of B.A. in 1895 and his medical degree from the Yale Medical School in 1897.

Upon graduation he received an appointment to the Hartford Hospital, but was unable to carry it through on account of ill health. It was at this time that he had the first intimation of the handicap he was to work under. It caused him to give up the surgical career upon which he was planning and take up the less strenuous one of medicine. His first practice was in Watertown, where he took the practice of Dr. Arthur D. Variell for a short time. From there he came to Woodbury.

In 1903 he was married to Miss Lillian W. Whymbs, of Woodbury, who survives him.

He was a member of King Solomon's Lodge of Masons, the New York Society for Psychological Research, the New York Academy of Medicine, the County, State and American Medical Associations.

In 1908, due to overwork, he suffered from a physical and nervous breakdown, and was obliged to give up his work for over a year. At this time, thinking he would not be able to attend to his practice, he opened a sanitarium at his home. This proved a great success, and although he gradually regained his health and took up an active practice, he never lost interest in this project. In fact, he was very proud of its success.

Dr. Reynolds was, by reason of his physical handicap, unable to mix with his fellow men as he would have desired, but found his pleasure and relaxation with his books of which he was inordinately fond. He was a profound thinker and student; an omnivorous reader, not only of medical literature, but the best of general literature, and was a great lover of the classics. Those who were privileged to know him intimately found an exceedingly congenial companion and entertaining conversationalist.

Professionally, he was careful, painstaking, and sympathetic. Intensely interested in his work, an extra good diagnostician, he was unusually successful in his practice.

Due to his extensive reading and retentive mind, he had a fund of information, available for his own use, as well as for the use of anyone who might desire it. His presence in the sick room always inspired confidence and there are many whom he has attended that will miss him and regret his untimely end.

"So near is grandeur to our dust,
So nigh is God to man,
When duty whispers, Lo! thou must,
The youth responds, I can."

Cushman Allen Sears, M.D.

FRANK K. HALLOCK, M.D.

Cushman Allen Sears, the beloved Nestor of the physicians of Middlesex County, died at his home in Portland early in the morning of October 20th, 1919. He was in his 82d year and a practicing physician for fifty-seven years, fifty-four of which were spent in Portland. Although partially retired from active service he still maintained a lively interest in his profession, attending regularly the meetings of medical societies, participating in the work of the Medical Board of the Middlesex Hospital and visiting a few old patients the day before he died. His genial disposition, optimistic temperament and rugged constitution no doubt would have yielded him additional years of life had it not been for a cardiac affection of late development and greatly aggravated by too intensive devotion to professional duties in the influenza epidemic in the fall of 1918.

Dr. Sears, son of Stephen Griffith and Emily Veazy Sears, was born in the neighboring town of East Hampton, September 26, 1838. His great-grandfather, Elkanah Sears, was a Revolutionary patriot and the wealthiest man in this town in his time (1734-1816). He sent supplies to the Colonial Army in his own vessels and outfitted a privateer to prey upon British commerce. Dr. Sears was a descendant of pure and sturdy New England stock, the ancestral lines of both his father and mother tracing back to Elder William Brewster of the company of Pilgrim Fathers who landed at Plymouth, Mass. in 1620.

Dr. Sears began his education in the district school of his native town, and entered Dr. Chase's famous school in Middletown at sixteen. Later he attended courses at the High School in East Hampton and finally completed his general studies at Wilbraham Academy, Wilbraham, Mass. His medical career began at once by entering the office of Dr. Sabin Stocking, a prominent physician of Glastonbury. In 1860 he attended his first course of lectures at the Berkshire Medical School in Pittsfield, Mass.

The following year he went to New York to continue his studies under the direction of Dr. Abbott Hodgeman, noted as the efficient officer holding the important position at that time of physician to the City Prison. In assisting Dr. Hodgeman, Dr. Sears gained much valuable experience in clinical medicine and surgery. A year later, in 1862, he received his medical degree from the New York University Medical College. He began practice the same year in East Haddam but was soon called to Glastonbury to take the place of his first preceptor, Dr. Stocking, who had joined the Union Army as a surgeon. In 1865 he removed to Portland where he resided the rest of his life and enjoyed a large medical practice for a period of fifty-four years.

On November 11, 1862, Dr. Sears married Miss Evelyn Lay, daughter of Judge Oliver I. Lay of Lyme, Connecticut. Since her death, many years ago, his sister, Miss Carrie D. Sears, resided with him. He leaves one son, Dr. Walter C. Sears, of Battle Creek, Mich. and two daughters, Anna Belle, wife of William H. Selden of Stambaugh, Mich. and New York, and Bertha E., wife of D. W. Robertson of Brooklyn, N. Y.

Dr. Sears was a member of the State and County Medical Societies and of the Central Medical Association of Middletown. He was an ex-president of the County Association and served on many important committees in all three medical societies. He was Vice President of the Connecticut State Medical Society in 1915. It was part of his religion to be faithful in attending all medical conferences and he was never absent except in rare instances of necessity. Dr. Sears also was deeply interested in the Middlesex Hospital, being one of its original incorporators and a consulting physician on its medical staff. For over fifty years he was an active member of the Congregational Church in Portland, having joined that denomination as a young man in East Hampton. Fraternally he was affiliated with I. O. O. F. and O. U. A. M. He never entered politics but served his town for twenty-eight years on the School Board as Acting Visitor and Chairman. He was a director and vice-president of the Free-stone Savings Bank; one of the founders of the Village Improvement Society and Medical Examiner for the town for many years, holding this office at the time of his death.

A few weeks before his death at the reception and banquet given to the Middlesex County physicians who had returned from service in the Great War, Dr. Sears was called upon to give the invocation and the high tribute was paid him by a life-long friend of being a man who had never been heard to speak ill of a fellow practitioner or fellow man, and of whom one never heard an ill word spoken.

Such was the broad, efficient and wholesome life of this worthy man, beloved by all, an honor to his profession and a blessing to the community in which he lived. The Commonwealth of Connecticut may well be proud of such a citizen whose life was upright and whose influence radiated naught but goodwill and helpfulness.

Edwards Montrose Smith, M.D.

CHARLES C. GODFREY, M.D.

Dr. Edwards M. Smith was born in Poughkeepsie, N. Y., January 19th, 1860, the son of Col. James Smith and Frances Edwards Smith. His father, Col. Smith, was born in Canada of Scotch parentage and was the originator of the Smith Bros. Cough Drops.

Dr. Smith's academic education was obtained in Poughkeepsie, N. Y., in the public schools and the Riverview Military Academy which was then under the control of Prof. Jewett. After completing this course, he studied with private tutors preparatory to his professional career, and then spent two years in the office of Dr. Packer, who was then the leading physician of Orange County. In 1880 Dr. Smith entered the College of Physicians and Surgeons and completed the three years course in 1882 with the degree of M.D. In his last year there he was assistant to Professor Munde in the gynecological clinic.

In 1883 Dr. Smith started the practice of medicine in Danbury, Conn., remaining there until 1886, when he took over the practice of Dr. Wile, of Newtown, Conn. Here he built up one of the largest practices in Fairfield County; but owing to ill health caused by the hardships of a country physician, he gave this up in 1901, associating himself with Dr. Charles C. Godfrey, of Bridgeport, Conn. This partnership continued until his death July 14, 1920. In Bridgeport, as in Newtown, he was successful in every sense of the word. His gentlemanly bearing, lovable nature, and deep interest in all with whom he came in contact won for him the love and respect of those who knew him. In the Bridgeport Hospital he was attending surgeon from 1906 to 1914, and consulting surgeon from 1915 until the time of his death.

Dr. Smith was a communicant of St. John's Episcopal Church and was actively interested in Masonic affairs. He was a past master of Hiram Lodge, Newtown, Conn., a member of Hamilton

Commandery of Bridgeport and of Pyramid Temple of the Mystic Shrine.

In 1887, Dr. Smith married Grace Dibble Raymond, of Danbury, who survives him with two children, Edna Smith Carpenter, and Andrew Raymond Smith, and two grandchildren, Andrew Raymond Smith, Jr., and Jean Carpenter.

Charles Ransom Upson, M.D.

ARTHUR H. BRACKETT, M.D.

Dr. Charles Ransom Upson was born in Oxford, Conn., a son of Harvey W. and Elizabeth Ransom Upson. He received his early education at the John E. Lovell private school and the Hudson River Collegiate Institute. After attending lectures at the Yale Medical School he entered the Long Island Medical School, from which he was graduated in the class of 1870.

He engaged in the practice of general medicine in New Haven and Forestville, but after taking a special course in the study of the ear, nose, throat and lungs, he removed to Atlanta, Ga. Here he served on the staff of St. Joseph's Hospital, but was obliged by ill health to return north in 1883. He remained in Waterbury from 1883 to 1904, whence he removed in 1904 to Bristol, on account of ill health. After his health improved he resumed practice in Bristol, where he remained till his death.

Dr. Upson was a member and for two years the president of the Bristol Medical Association. He was also a member of the County, State and National Associations.

The warmth of the social side of his nature was manifested in the interest he took in the fraternal life of the community. He was a charter member of The Tunxis Tribe, Improved Order of Red Men, of Waterbury, and held the office of Great Sachem of the Great Council of Connecticut. For four years he represented the Great Council of Connecticut in the Great Council of the United States.

In 1882 he married Ella Augusta Downs, who died in 1908. In 1912 he married Katharine Lage, who survives him.

During the last two years of his life he was troubled with heart disease, but recovered sufficiently to resume his practice.

The end came September 21, 1920, in his office while unpacking a box of apparatus. Happy are they who die in the harness.

Dr. Upson was a charming man to meet socially. He was kindly and urbane, and was much respected and liked by his patients and esteemed by the whole community for his sterling qualities. He was popular among his medical colleagues and much respected for his professional attainments.

Peter P. Van Vleet, M.D.

FRANK H. BARNES, M.D.

Peter P. Van Vleet was born in Lodi, N. Y., on February 27, 1847. He was educated in the schools of that town. He graduated in 1868 from Geneva Medical School, Hobart College, which afterwards became part of the Syracuse University. Later he graduated from Bellevue Medical College and was an interne in the hospital for one year.

He practiced in Shortsville, N. Y., for sixteen years, came to Stamford in 1884, and practiced here until his death. He was a Democrat in politics and was Chairman of the Democratic Town Committee at one time. He was a member of the Presbyterian Church. He served one term as member of the School Committee. He was a member of the Royal Arcanum and was medical examiner for the order for many years, and a member of the Stamford, Fairfield County and State Medical Societies.

Dr. Van Vleet was a man who held the loyalty of his patients in a wonderful manner and was a great loss to his community. In 1870 he married Anna M. Fulton, who died May 11, 1919. This was a great shock to him. They had two children. His daughter, Mrs. Hawley B. Chase, survives him. His kindly and genial manner made him many friends and he was much beloved. Dr. Van Vleet died March 12, 1921, after a life of usefulness to his community.

Calvin Weidner, M.D.

JAMES J. BOUCHER, M.D.

Dr. Calvin Weidner was born in Tippecanoe County, Indiana, September 6, 1867. His parents emigrated from Pennsylvania in 1859, coming to their new home by means of an emigrant train.

The Doctor received his early education in the common schools at Mulberry, Ind., and the Central Normal School at Danville, Ind. At an early age he became thoroughly imbued with an intense desire to study medicine, but as the family was large and the parents in moderate financial circumstances, he decided he would earn the necessary funds to enable him to pursue the study of his chosen profession. With that aim in view, he taught school for four years. He then entered the Louisville, Ky., Medical School where he took up special preparatory work and was granted a diploma from that institution on June 19, 1891. Following this he entered the Medical College of Indiana from which he was graduated in 1893, being made a Fellow of the Sydenham Society. After graduation he practiced medicine for four years with Dr. Wood of Angola, Ind., and a few months in Michigan Town, Ind., after which he came East, locating in Westford, Mass., where he remained for a short time.

He located in Manchester, Conn., in 1896, where he built up a large practice, remaining there until 1908, when poor health compelled him to relinquish some of his arduous duties and with great regret he bade good-bye to the people he had served so long and faithfully. Going then to Vienna, he took up the study of diseases of eye, ear, nose and throat. After a year in Europe, studying under the masters, he returned to New York, where he took up further special study, finally locating in Hartford, Conn., to begin practice in his new field in 1909. Although a comparative stranger to the profession they soon learned to know him favorably through the high character of

his work. He was a student first, last and always, never seeming to tire of study, always keeping abreast of the best in medicine. No amount of time or energy seemed the least effort to his trained mind and when a patient left his office it was certain that he had been given the best that Dr. Weidner was able to bestow. His motto always was, "I intend to do my best" and he lived up to that every day of every year.

It would seem that he should have been a teacher, because he possessed such a vast fund of information and his ability to convey it to others in a plain, forceful manner was unmistakable. There is no doubt that he would have adorned any faculty and his students would have gained a distinct advantage because of such an instructor. It was a delight to hear him read a medical paper or discuss a medical topic. Once having heard him speak, it was clearly evident that his was a master mind.

He impressed his patients not only by his delightful personality, the enthusiasm he displayed in his work, or the kindness with which he treated old and young, rich and poor, but the intense energy with which he did all of his work. His patients loved him, one and all. They were his friends, and well might they be. One could truly say his life and his work were of the order of the Great Physician. So often have I heard the story repeated by his patients, "Dr. Weidner was a splendid man."

He soon built up a large, lucrative practice, although the monetary consideration appealed little to him. Not only was he a learned physician, he possessed many other talents. He was thoroughly versed in the subjects of botany and music. He was an ardent outdoor man, devoting such time as he could to exploration of the woods, fields and streams. He knew the flowers and birds and loved to be among them.

He was a modest man and apparently not much given to social intercourse, but his friends who knew him best appreciated him as a loyal, true, generous friend, whose friendship could be treasured. His life was all too short and like many another hero in the profession, he made no effort to conserve his physical powers, therefore he gave his life as a result of the sacrifices that he made to give health and happiness to others.

When the United States entered the World War he promptly offered his services, but owing to defective vision he was not accepted. This was a bitter disappointment to him. Many times he spoke with great regret that he could not be in the service of his country. An untiring worker, he could not stand the physical strain and finally he developed nephritis and was obliged to give up his work in October, 1919, when he was confined to his bed until late in the same year. In January, 1920, he went to Florida in hopes that the climate might improve his health, but to no purpose, and despite all human aid he finally breathed his last April 12, 1920, in Sarasota, Florida. His remains were placed in the little cemetery in Buckland, Conn., there to lie in the beautiful country where he labored for so many years and which he loved so well.

He is survived by his widow, Mrs. Edith Toulds Weidner. Once asked what his epitome of life was, he replied, "Duty—work, some sorrow, a little love to compensate for it all; then—God." Thus he appealed to those who knew him, a true, faithful, loyal friend, a loving husband, a skilled, conscientious, modest physician, whose services enriched the profession of medicine because of his membership in it. A man who loved and revered his God and who tried his best to do that which he felt his Creator had willed.

He is gone to his well earned rest. He has left his friends, but his example is an inspiration to those left behind.

"Rest Comrade, thy earthly labors are o'er.

Some day we hope to meet you again on that beautiful shore."

George Kellogg Welch, M.D.

FREDERICK S. CROSSFIELD, M.D.

Dr. George Kellogg Welch was born in Hartford, October 6, 1856. He graduated from the Hartford High School in 1873. He entered Yale College, but owing to some eye trouble he was obliged to give up his studies there.

Later he entered the College of Physicians and Surgeons and graduated in 1877. He practiced medicine in New Britain for a short time and then came to Hartford. For two years he was assistant house physician at the Hartford Retreat. He was a member of the Hartford Medical Society and was its treasurer for ten years. He was also a member of the Hartford County and Connecticut Medical Societies. The past few years Dr. Welch was not in active practice.

Dr. Welch died at the home of his daughter in East Aurora, N. Y., February 20, 1921. He is survived by his wife, who was Katherine Kissam Humphrey of Hartford, and two daughters, Mrs. William Larshar of Providence, R. I., and Mrs. De Mauriac of East Aurora, N.Y.

His home life was ideal and he spent all the time possible with his family—a devoted husband and father, a worthy citizen. He was much respected by all who knew him. In the death of Dr. Welch the Hartford County Medical Society loses a universally esteemed member.

Therefore, be it resolved, that the members of this Society, desiring to show their respect for him, do hereby cause this tribute to be placed on their records, and extend to his bereaved family their heartfelt sympathy.

Redfield Benjamin West, M.D.

Dr. Redfield B. West, who died July 13, 1920, at his home on Fair Street, was born in Guilford, October 28, 1857, and was the son of the late Benjamin and Cornelia E. West. His ancestors on the maternal side were old residents of this town and can be traced as far back as his great-grandfather, Russell Frisbie, who was born near Branford, and married Eunice Redfield of Guilford. His mother was the daughter of George E. and Sarah Frisbie Bradley. Dr. West, after receiving his degree of doctor of medicine from the University of the City of New York, practiced medicine for several years at No. 7 Abingdon Square, New York City, and later at 222 Shawmut Avenue, Boston, Mass., and still later at 163 York Street, New Haven, Conn.

In order to be with his parents in their declining years, he removed to Guilford in 1892, opened his office in the house in which he was born and where he died, and soon succeeded in establishing a large and lucrative practice. Early in life he became intensely interested and very successful in chemical researches, and in 1899, and also 1900, was granted letters patent for improvements in photographic printing. In 1894 Dr. West was appointed by Governor Morris, State Chemist; reappointed by Governor Coffin in 1896; again by Governor Cooke in 1898, and by Governor Lounsbury in 1900. In 1897 he was appointed town health officer for Guilford, and also medical examiner in the same year, offices which he held for a period of years.

While residing in Boston he married Miss Edith Goudey of that city, daughter of Henry F. and Lois A. Goudey, who has proved a devoted wife and has tenderly cared for the doctor during the past years of ill health and suffering. A useful life is ended, another familiar face and form has passed from our midst; but Dr. West will live in the memory of those who knew him intimately as a gentleman in the sick room, never boastful, apparently devoid of egotism, kind and considerate; but never descending from a certain reserve of manner and dignity of speech and bearing.

Funeral services were conducted by St. Albans Lodge, No 38, on July 20, from his late residence on Fair Street. There were twenty-six Masons present. Rev. F. E. Snow officiated. The bearers were Harry Morse, William C. White, H. W. Leete, Clarence Loomis, J. H. Evans and Amos Swain of Clinton. Committal in Riverside cemetery.

[This obituary was furnished by Mrs. R. B. West, of Guilford, in compliance with the expressed desire of Dr. West, that his obituary be published in the Proceedings of the Connecticut State Medical Society. EDITOR.]

Frank Hamilton Whittemore, M.D.

GUSTAVUS ELIOT, M.D.

Dr. Frank Hamilton Whittemore was born in Plymouth, Connecticut, July 6, 1854. His family was descended from Thomas Whittemore, who came from Hitchin, Hertfordshire, England, and in 1640 was living in Charlestown, Mass.

His father, Dr. Franklin J. Whittemore, a former member of this Association, was born in Washington, Massachusetts, graduated from the Medical Department of the University of the City of New York, in 1851, and commenced practice in Terryville (Plymouth), Connecticut. He removed to New Haven in May, 1868, where for many years he enjoyed a large practice. In 1883 he transferred his residence to Clyde, Ohio, where he died in 1911. He married, in October, 1851, Fallah, daughter of Eli Terry, Jr., whose family was famous in connection with the invention and manufacture of clocks. She died in 1864, having borne four children, of whom the eldest was Frank Hamilton, our recently deceased fellow member.

He pursued preparatory studies at the Hopkins Grammar School, in New Haven, in those days at the height of its prosperity under the rectorship of the late Henry Norton Johnson, and then commenced the study of medicine in the Bellevue Hospital Medical College, in the City of New York, where he graduated in 1874. This famous medical institution of the last century, which began its career in 1861, was widely proclaimed as a college in which especial emphasis was laid upon practical teaching in clinics. Its faculty included many of the well-known teachers of that generation, among whom were Fordyce Barker, the fashionable obstetrician, and author of "The Puerperal Diseases," William H. Van Buren, the genito-urinary surgeon, Austin Flint, Sr., the distinguished teacher of clinical medicine, and author of "The Practice of Medicine," and James R. Wood, the famous surgeon of Bellevue Hospital—to mention only a few of those who were most widely known. These men and their col-

leagues greatly inspired the students, who came from all sections of the country, and a large proportion of the graduates of their classes in after years occupied positions of great usefulness and influence in the communities where they made their homes, and practiced their profession.

After receiving his medical degree, Dr. Whittemore served on the house staff of the Jersey City Charity Hospital, where Dr. T. R. Varick was doing work in traumatic surgery, which gave him a national reputation.

In 1876 Dr. Whittemore commenced practice in New Haven with his father. He was soon doing much surgical work, especially accidental and traumatic surgery, including the treatment of wounds, fractures and dislocations. For many years he did most of the surgery in New Haven, of the New York, New Haven and Hartford Railroad Company, and also of many of the factories. But his practice was not limited to surgery, and he did a large general medical practice, which was not limited to New Haven, but extended into neighboring towns. He also was frequently called in consultation in all parts of the state.

He conducted his practice in an exceptionally business-like way. He started on his rounds early in the morning, and worked continuously and systematically until all his patients had been seen. After finishing the work of the day, he retired early in order to secure the rest necessary to prepare him for the labor of the following day. He manifested rare devotion to his patients, responding promptly to their calls, and continuing his visits with the requisite regularity as long as it seemed to him to be necessary. He made his examinations carefully and with thoroughness, and arrived at definite conclusions based on the history as given by the patients, on the symptoms observed at the bedside, and on the physical signs elicited. Having determined the nature of the pathological condition present, his treatment was positive and direct, and afforded relief, if it were obtainable through the influence of remedial agents. His manner in the sick room inspired confidence and hope. He listened with seriousness to the complaints of his patients, and then encouraged them by his cheerful-

ness. Few physicians in this vicinity have had a wider professional acquaintance, or have obtained the respect and affection of a wider circle of patients.

He was a constant reader of modern medical literature, and had an extensive library to which he made frequent additions of the newer works by the more distinguished writers. These with the current professional periodicals enabled him to keep fully informed of the progress of medical science, especially in its more practical aspects.

For many years he was one of the Consulting Staff of the New Haven Hospital.

He was a member of the New Haven (City) Medical Association, the New Haven County Medical Association, The Connecticut State Medical Society, and the American Medical Association. He was always prompt and liberal in aiding any progressive movement undertaken by these organizations.

He was a member of the Graduates Club, and of the New Haven Country Club where he frequently played golf. Many of his vacations were spent in travel in the western and southern sections of the United States and in Europe.

Dr. Whittemore was married October 19, 1876, to Amelia, daughter of Hon. Isaac T., and Martha A. (Ingersoll) Rogers, of Milford, Connecticut. She survives him, with a son, Dr. E. Reed Whittemore, a member of this Association, and three grandsons. Dr. Charles Whittemore Knapp, of Greenwich, Connecticut, is his nephew. His son and nephew are of the third generation of the Whittemore family to practice medicine in Connecticut, and to be members of the Connecticut State Medical Society.

For over four decades he was one of the most active practitioners in the city. During recent years he had experienced occasional warnings that he must avoid overwork, and he took somewhat protracted periods of rest. But for the last year, as he assured another physician a week before he died, he had never enjoyed better health, had never done a larger practice, and had never enjoyed his work more.

Early on a Monday morning he was seized with a severe pain

in his chest, and appeared to be suffering an attack of influenza ; a few days later pneumonia developed, and quickly ended his life on Thursday, February 26, 1920. His funeral was conducted by Dr. William A. Beardsley of St. Thomas's Church, with which he had been connected for many years, and he was buried in the New Haven City Burial Ground, more commonly known as the Grove Street Cemetery.

CHARTER AND BY-LAWS.

Resolution Amending the Charter of the Connecticut Medical Society.

GENERAL ASSEMBLY.

JANUARY SESSION, A.D. 1905

Resolved by this assembly:

Section 1. That the charter of the Connecticut Medical Society, approved June 5, 1834, and as the same has been amended from time to time, be and the same is hereby amended so as to read as follows:

That all persons who are now members of the Connecticut Medical Society and all physicians and surgeons who shall hereafter be associated with them in pursuance of the provisions of this resolution shall be and remain a body politic and corporate by the name of The Connecticut State Medical Society; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded, in all suits of whatever name and nature; may have a common seal and may alter the same at pleasure; and may also purchase, receive, hold, and convey any estate, real and personal, to an amount not exceeding one hundred thousand dollars.

Sec. 2. The superintendence and management of the corporation shall be vested in a board to be known and called by the name of The House of Delegates of The Connecticut State Medical Society, which board shall have power to establish officers in said corporation and prescribe the duties of the several officers and of the members of said corporation and may fix their compensation; to establish the conditions of admission to and dismissal and expulsion from said society; to lay a tax from time to time upon the members, not exceeding five dollars in each year, and to collect the same; to hold and dispose of all moneys and other property belonging to the corporation in such manner as they may deem proper to promote the objects and interests of the society; and in general to make such by-laws and regulations for the due government of the society, not repugnant to the laws of the United States or of this state, as may be deemed necessary.

Sec. 3. The House of Delegates of The Connecticut State Medical Society shall be composed of, (1) ex officio, the president and secretary of the society; (2) delegates to be elected annually as hereinafter provided, by the several county medical associations in this state which heretofore have been and now are affiliated with The Connecticut Medical Society; and (3) eight councilors to be elected from time to time as hereinafter provided.

Sec. 4. An annual meeting of the corporation for the election of officers and such other business as may from time to time arise, shall be held during the month of May in each year and upon such day in said month as the House of Delegates shall from time to time prescribe.

Sec. 5. At a meeting to be held at least twenty days in advance of the annual meeting of the corporation in each year, every affiliated county association shall elect a delegate or delegates to represent it in the House of Delegates of this society in the proportion of one delegate to each thirty-five members, or any part of that number, and the secretary of such affiliated county association shall send a list of such delegates to the secretary of this corporation at least twenty days before the date of said annual meeting.

Sec. 6. The first councilors shall be appointed by the president, one from each county, who shall serve for one year or until their successors shall be elected. At their annual meeting in the year 1906, each affiliated county medical association shall elect one councilor, of whom those elected in Hartford, New London, Windham, and Middlesex counties shall serve for one year, and those elected in New Haven, Fairfield, Litchfield, and Tolland counties shall serve for two years; and at the expiration of the term of office of the councilors, so elected, each affiliated county medical association shall, biennially thereafter, elect a councilor, who shall serve for two years.

Sec. 7. The secretary of every affiliated county medical association in this state shall, in May, 1905, and annually thereafter, at least ten days before the annual meeting of the society, file with its secretary a list of all members of said respective county associations who are at the time in good and regular standing, and thereupon all such persons shall become and be members of The Connecticut State Medical Society without further action.

The Connecticut State Medical Society.

BY-LAWS.

CHAPTER I.

Section 1. Name. The name and title of this organization shall be The Connecticut State Medical Society.

Sec. 2. Purposes of the Society. The purposes of this Society shall be to federate and bring into one compact organization the entire medical profession of the State of Connecticut, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; to enlighten and direct public opinion in regard to the great problems of State medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

Sec. 3. Component Associations. Component Associations shall consist of those county medical associations which heretofore have been and now are affiliated with the Connecticut Medical Society.

Sec. 4. Composition of Society. This Society shall consist of members, delegates, guests, and honorary members.

Sec. 5. Members. Members of this Society shall be members of the component county medical associations.

Sec. 6. Delegates. (1) Delegates shall be those members who are elected by the component county associations; (2) the Councilors; their respective component associations in the House of Delegates of this Society.

Sec. 7. Guests. Any distinguished physician not a resident of this State who is a member of his own State Association, may become a guest during any annual session on invitation of

the officers of this Society and shall be accorded the privilege of participating in all the scientific work for that session.

Sec. 8. Honorary Members. Eminent physicians, not residents of this State, may be elected Honorary Members by a major vote of the House of Delegates after nomination of one year, but shall not exceed three in any one year.

Honorary Members shall have all the privileges accorded by Section 7 to guests.

CHAPTER II.—MEMBERSHIP.

Section 1. The name of a physician upon the properly certified roster of members of a component association, who has paid his annual assessment, shall be prima facie evidence of membership in this society.

The annual tax shall be collected from all such members except the secretaries of County Medical Associations, but the taxes of any member may be remitted by vote of the House of Delegates upon recommendation of any County Medical Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component association, or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of the Society, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component association of which he is a member.

CHAPTER III.—HOUSE OF DELEGATES.

Section 1. The House of Delegates shall be the legislative and business body of the Society, and shall consist of (1) delegates elected by the component county associations; (2) the Councilors; and (3), ex officio, the President and Secretary of this Society.

Sec. 2. The House of Delegates shall meet on the first day of the annual session. It may adjourn from time to time as may be

necessary to complete its business, provided that its hours shall conflict as little as possible with the General Meetings. The order of business shall be arranged as a separate section of the programme.

Sec. 3. Each component association shall be entitled to send to the House of Delegates each year, one delegate for every thirty-five members, or any part of that number.

Sec. 4. Fifteen delegates shall constitute a quorum.

Sec. 5. It shall, through its officers, Council, and otherwise, give diligent attention to and foster the scientific work and spirit of the Society, and shall constantly strive to make each annual session a stepping-stone to further advancement.

Sec. 6. It shall consider and advise as to the material interests of the profession, and of the public in those important matters wherein it is dependent upon the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 7. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests in such county associations as already exist and for organizing the profession in counties where associations do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until every physician in every county in the State who can be made reputable has been brought under medical society influence.

Sec. 8. It shall encourage post-graduate and research work, as well as home study, and shall endeavor to have the results discussed and utilized.

Sec. 9. It shall elect representatives to the House of Delegates of the American Medical Association in accordance with the Constitution and By-Laws of that body.

Sec. 10. It shall have authority to appoint committees for special purposes from among members of the Society who are not members of the House of Delegates.

Such committees shall report to the House of Delegates, and may be present and participate in the debate on their reports.

Sec. 11. It shall approve all memorials and resolutions issued in the name of the Society before the same shall become effective.

Sec. 12. Sections and District Societies. The House of Delegates may provide for a division of the scientific work of the Society into appropriate sections, and for the organization of such Councilor District Associations as will promote the best interests of the profession, such associations to be composed exclusively of members of component county associations.

CHAPTER IV.—SESSIONS AND MEETINGS.

Section 1. The Society shall hold an annual session, during which there shall be held daily General Meetings which shall be open to all registered members, guests and honorary members.

Sec. 2. The time and place for holding each annual session shall be fixed by the House of Delegates.

Sec. 3. Special meetings of either the Society or the House of Delegates shall be called by the President, on petition of ten (10) delegates or fifty (50) members.

Sec. 4. General Meetings. All registered members may attend and participate in the proceedings and discussions of the General Meetings and of the Sections. The General Meetings shall be presided over by the President or by one of the Vice Presidents, and before them shall be delivered the address of the President and the orations.

Sec. 5. The General Meeting may recommend to the House of Delegates the appointment of committees or commissions for scientific investigation of special interest and importance to the profession and the public.

CHAPTER V.—OFFICERS.

Section 1. The Officers of this Society shall be a President, two Vice Presidents, a Secretary, a Treasurer, and eight Councilors.

Sec. 2. The officers, except the Councilors, shall be elected annually. The first Councilors shall be appointed by the President, one from each county, who shall serve for one year, or until their successors shall be elected. At their annual meetings in the year 1906, each affiliated county medical association shall elect one councilor, of whom those elected in Hartford, New London, Windham, and Middlesex counties shall serve for one year, and those elected in New Haven, Fairfield, Litchfield, and Tolland counties shall serve for two years, and at the expiration of the term of office of the councilors so elected, each affiliated county medical association shall, biennially, elect a councilor, who shall serve for two years.

Sec. 3. All elections shall be by ballot, and a majority of the votes cast shall be necessary to elect.

Sec. 4. The election of officers shall be the first order of business of the House of Delegates after the reading of the minutes on the morning of the last day of the General Session, but no delegate shall be eligible to any office named in the preceding section except that of councilor, and no person shall be elected to any such office who has not been a member of the Society for the past two years.

CHAPTER VI.—DUTIES OF OFFICERS.

Section 1. The President shall preside at all meetings of the Society and of the House of Delegates; shall appoint all committees not otherwise provided for; shall deliver an annual address at such times as may be arranged, and perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office and, as far as practicable, shall visit by appointment the various sections of the State and assist the Councilors in building up the county associations and in making their work more practical and useful.

Sec. 2. The Vice Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation, or removal, the Council shall select one of the Vice Presidents to succeed him.

Sec. 3. The Treasurer shall give bond in the sum of \$1,000, the manner of bonding to be left to the Council. He shall demand and receive all funds due the Society, together with the bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary; he shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his doings and of the state of the funds in his hands.

Sec. 4. The Secretary shall attend the General Meetings of the Society and the meetings of the House of Delegates, and shall keep minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record books and papers belonging to the Society, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Society which come into his hands. He shall provide for the registration of the members and delegates of the annual sessions. He shall, with the coöperation of the secretaries of the component associations, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county association, and, on request, shall transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county associations and in the extension of the power and usefulness of this Society. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates, and shall make an annual report to the House of Delegates. He shall supply each component association with the necessary blanks for making their annual reports. Acting with the Committee on Scientific Work, he shall prepare and issue all programmes. The amount of his salary shall be fixed by the Council.

CHAPTER VII.—COUNCIL.

Section 1. The Council shall consist of one Councilor from each county and the President, Secretary and Treasurer ex officio. It shall be the Finance Committee of the House of Delegates. Five Councilors shall constitute a quorum.

The Board of Councilors shall appoint from its own members two members who, with the Treasurer of the Society, shall constitute a sub-committee to be designated a Committee on the Permanent Funds, whose duty it shall be to advise on the investment of such funds as the Society may have or receive by bequest or donation, according to the laws of the State of Connecticut governing trust funds. This committee shall, through the Chairman of the Council, recommend to the House of Delegates the disposition to be made of the permanent funds, both principal and income.

Sec. 2. The Council shall meet daily during the session, and at such other times as necessity may require, subject to the call of the chairman or on petition of three Councilors. It shall meet on the last day of the annual session of the Society to organize and outline work for the ensuing year. It shall elect a chairman and a clerk, who, in the absence of the Secretary of the Society, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates.

Sec. 3. The Board of Councilors shall constitute the nominating committee of the Society. They shall report as such to the House of Delegates on the first day of the general session. After the report has been submitted an opportunity shall be given for other nominations to be made.

Sec. 4. Each Councilor shall be organizer, peacemaker, and censor for his district. He shall visit the counties in his district at least once a year for the purpose of organizing component associations where none exist; for inquiring into the condition of the profession, and for improving and increasing the zeal of the county associations and their members. He shall make an annual report of his work and of the condition of the profession

of each county in his district at the annual session of the House of Delegates.

Sec. 5. The Council shall be the Board of Censors of the Society. It shall consider all questions involving the rights and standing of members, whether in relation to other members, to the component associations, or to this Society. All questions of an ethical nature brought before the House of Delegates or the General Meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members or component associations on which an appeal is taken from the decision of an individual Councilor, and its decision in all such matters shall be final.

Sec. 6. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions, and memoirs of the Society, and shall have authority to appoint an editor and such assistants as it deems necessary. All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Treasurer of the Society. As the Finance Committee, it shall annually audit the accounts of the Treasurer and Secretary and other agents of this Society, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of this Society during the year, and the amount of all other property belonging to the Society under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary or the Treasurer, the Council shall fill the vacancy until the next annual election.

CHAPTER VIII.—COMMITTEES.

Section 1. The standing committees shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Medical Examination and Medical Education

A Committee on Honorary Members and Degrees.

A Committee on Medical Defense.

A Committee on Arrangements, and such other committees as

may be necessary. Such committees shall be elected by the House of Delegates unless otherwise provided.

Sec. 2. The Committee on Scientific Work shall consist of three members, of which the Secretary shall be one, and shall determine the character and scope of the scientific proceedings of the Society for each session, subject to the instructions of the House of Delegates. Fifteen days previous to each annual session it shall prepare and issue a programme announcing the order in which papers, discussions and other business shall be presented.

Sec. 3. The Committee on Public Policy and Legislation shall consist of one member from each component association, and the President and Secretary and the Committee on National Legislation. Under the direction of the House of Delegates it shall represent the Society in securing and enforcing legislation in the interest of the public health and scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state, and national affairs and elections.

Sec. 4. The Committee on Medical Examination and Medical Education shall consist of five members, who shall be appointed in accordance with Sec. 4717 of the general statutes of the State of Connecticut. The committee shall conduct the medical examination of candidates for certificates of qualifications for license to practice medicine in the State in accord with the requirements of the Medical Practice Act. It shall annually present a written report to the House of Delegates. The committee shall also be a committee on medical education and shall coöperate with the council of education of the American Medical Association in the effort to elevate the standard of medical education in the United States.

Sec. 5. The Committee on Honorary Members and Degrees may present annually to the House of Delegates the names of not more than three eminent physicians, not residents of this state, as candidates for honorary membership in this Society. Such candidates may be elected honorary members in accordance with the provisions of Chap. I, Sec. 8, of the By-Laws.

Sec. 6. The Committee on Arrangements shall be appointed by the component association in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Society and of the House of Delegates, and of their respective committees. Its chairman shall report an outline of the arrangements to the Secretary for publication in the programme, and shall make additional announcements during the session as occasion may require.

Sec. 7. The Committee on Medical Defense shall consist of three members to be chosen by the House of Delegates at the annual meeting in 1921, one to be elected for one year, one to be elected for two years, one to be elected for three years; and thereafter one member shall annually be elected for a term of three years. The Secretary of the Society shall be ex-officio a member of this committee and shall act as secretary of the Committee on Medical Defense.

It shall be the duty of the members of the Committee on Medical Defense to investigate all claims for malpractice made against members; to take full charge of all cases which after investigation they have decided to be proper cases for defense, and defend such cases to the end, pay all costs of such defense, but they shall not pay nor obligate the Connecticut Medical Society to pay any judgment rendered against any member upon the final determination of any such case. They shall be empowered to contract with such agents or attorneys as they deem necessary.

First. Members shall not be entitled to malpractice defense if the acts in the suit for which they make application for defense were committed prior to their admission to membership in this Society, or before enactment of this by-law.

Second. A member in arrears with annual dues shall not be entitled to medical defense by the committee.

Third. Members who have been dropped for non-payment of dues, if reinstated, shall not be entitled to malpractice defense for acts committed during the time they were not members of this Society.

Fourth. Active members of the Society desiring to avail themselves of the privileges of this act, shall make application

therefor in writing to the Secretary of the Society with satisfactory proof of their membership in good standing. They shall also furnish the Secretary a complete and accurate statement of their connection with, and treatment of, the case upon which the charge of malpractice is based, giving dates of attendance, names and residence of nurses and other persons cognizant of facts and circumstances necessary to a clear and definite understanding of all matters in question and shall furnish such other relevant information and execute such papers as may be required of them by the Secretary or the attorney of the Society.

Fifth. A member shall agree not to compromise any claim against him, nor to make settlement in any manner without the advice or consent of the Society given through its attorney.

Sixth. In the event that a member sued or threatened with suit shall without the advice or consent of the attorney of the Society, determine to settle or compromise any claim against him, he shall reimburse the Society for the expenses incurred in undertaking his defense, and in default thereof, he shall be deprived of further privileges under this by-law.

Seventh. The expenses incurred by the Committee shall be paid by the Society upon presentation of vouchers properly approved by the Secretary and the Committee on Medical Defense.

CHAPTER IX.—RECIPROCITY OF MEMBERSHIP WITH OTHER STATE SOCIETIES.

In order to broaden professional fellowship, this Society is ready to arrange with other State Medical Societies for an interchange of certificates of membership, so that members moving from one State to another may avoid the formality of reelection.

CHAPTER X.—FUNDS AND EXPENSES.

Funds shall be raised by an equal per capita assessment on each component association. The amount of the annual assessment per member shall be fixed by the House of Delegates.

Funds may also be raised by voluntary contributions, for the Society's publications, and in any other manner approved by the House of Delegates. Funds may be appropriated by the House of Delegates to defray the expenses of the Society, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be referred to the Finance Committee before action is taken thereon.

CHAPTER XI.—REFERENDUM.

Section 1. A General Meeting of the Society may, by a two-thirds vote of the members present, order a general referendum on any question pending before the House of Delegates, and when so ordered the House of Delegates shall submit such question to the members of the Society, who may vote by mail or in person, and, if the members voting shall comprise a majority of all the members of the Society, a majority of such vote shall determine the question and be binding on the House of Delegates.

Sec. 2. The House of Delegates may, by a two-thirds vote of its members present, submit any question before it to a general referendum, as provided in the preceding section, and the result shall be binding on the House of Delegates.

CHAPTER XII.—COUNTY ASSOCIATIONS.

Section 1. All County Associations now in affiliation with the Connecticut Medical Society shall be component parts of this Society.

Sec. 2. Each County Association shall judge of the qualification of its members, but as such associations are the only portals to this Society and to the American Medical Association, all reputable and legally registered physicians, except those who practice or claim to practice or lend support to any exclusive or irregular system of medicine, shall be entitled to membership.

No physician shall be admitted to or retain membership in a County Medical Association after the expiration of his present contract who has agreed to furnish medical services to any organization or union for a stipulated sum per member, or for other consideration than the regular local fee for such services.

Sec. 3. Any County Medical Association may suspend or expel any member who is guilty of improper or unprofessional conduct, by a two-thirds vote of the members present and voting at any regular meeting, provided due notice has been given on the programme of said meeting at least ten days before its session. When from any cause a member of the Connecticut State Medical Society ceases to be a member of one of the component county medical associations, his membership in the Connecticut State Medical Society shall terminate, but any physician who may feel aggrieved by the action of the association of his county in refusing him membership or in suspending or expelling him, shall have the right to appeal to the Council, and its decision shall be final.

Sec. 4. In hearing appeals the Council may admit oral or written evidence as in its judgment will be best and to most fairly present the facts, but in case of every appeal, both as a Board and as individual councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 5. When a member in good standing in a component association moves to another county in this state, his name, on request, shall be transferred, without cost, to the roster of the county into whose jurisdiction he moves.

Sec. 6. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the association in whose jurisdiction he resides.

Sec. 7. Each component association shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral, and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 8. At some meeting in advance of the annual session of this Society, each county association shall elect a delegate or delegates to represent it in the House of Delegates of this Society in the proportion of one delegate to each thirty-five members, or

any part of that number, and the Secretary of the Association shall send a list of such delegates to the Secretary of this Society at least twenty days before the annual session.

In the case of death, illness or disability of a Councilor or delegate, the President of the County Association in which the vacancy occurs shall appoint a substitute Councilor or delegate, with full power to represent his county during the Councilor's or delegate's disability, or until the successor of such appointee is elected at the next meeting of the County Medical Association.

Sec. 9. The Secretary of each component association shall keep a roster of its members and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of registration in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 10. The fiscal year of the Society shall terminate on April 30 of each year.

On or before May 10 of each year the Secretary of each component association shall make a report to the Treasurer of the Society on a blank provided by the Treasurer for that purpose, stating, 1st, the number of members from his county and the number exempt; 2d, the total amount collected on the tax of that fiscal year; the amount collected during the year on taxes in arrears; the amount of taxes still in arrears for one year previous; the amount in arrears for two years previous, together with a check to cover the above mentioned collections.

The bills for the tax laid at the annual meeting shall be sent to each member by the respective county clerks on the first day of June of each year.

The clerk of each component association shall forward its roster of officers and list of members and of non-affiliated physicians to the Secretary and Treasurer of this Society each year within five days after the annual session of his county association.

Sec. 11. The several county medical associations shall have power to adjourn; to call special meetings, as they shall deem expedient; and to adopt such by-laws as they find desirable, not contrary to the laws of this State or the charter and by-laws of The Connecticut State Medical Society.

CHAPTER XIII.—MISCELLANEOUS.

Section 1. No address or paper before this Society, except those of the President and orators, shall occupy more than twenty minutes in its delivery; and no member shall speak longer than five minutes, nor more than once on any subject except by unanimous consent.

Sec. 2. All papers read before the Society or any of the Sections shall become its property. Each paper shall be deposited with the Secretary before reading. No paper shall be read before this Society which has been previously published or read before any other organization.

Sec. 3. The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with the charter and by-laws.

Sec. 4. The Principles of Medical Ethics of the American Medical Association shall govern the conduct of members in their relations to each other and to the public.

CHAPTER XIV.—AMENDMENTS.

These By-Laws may be amended at any annual session by a majority vote of all delegates present at that session, after the amendment has been laid on the table until the next annual session. If, however, the proposed alteration has been published in the notice of the session, it may be acted upon after it has laid on the table one day.

MEMBERS OF THE
CONNECTICUT STATE MEDICAL
SOCIETY.

1921.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

| | | |
|------|----------------------------|----------------------|
| 1890 | WILLIAM HENRY WELCH..... | Baltimore, Md. |
| 1891 | ROBERT FULTON WEIR..... | Hague, N. Y. |
| 1894 | HON. CHARLES E. GROSS..... | Hartford, Conn. |
| 1894 | DAVID WEBSTER..... | New York City, N. Y. |
| 1895 | HENRY O. MARCY..... | Boston, Mass. |
| 1896 | T. MITCHELL PRUDDEN..... | New York City, N. Y. |
| 1896 | WILLIAM W. KEEN..... | Philadelphia, Pa. |
| 1903 | REYNOLD WEBB WILCOX..... | New York City, N. Y. |
| 1917 | RICHARD P. STRONG..... | Boston, Mass. |
| 1917 | HERMANN M. BIGGS..... | Albany, N. Y. |
| 1918 | HARVEY CUSHING..... | Boston, Mass. |
| 1921 | EDWARD R. BALDWIN..... | Saranac Lake, N. Y. |

ACTIVE MEMBERS.

This list is corrected to the date of the Annual Meetings of the
County Societies, April, 1921.

FAIRFIELD COUNTY.

President, FRITZ C. HYDE, M.D., Greenwich.

Vice President, WILLIAM A. LA FIELD, M.D., Bridgeport.

Secretary, C. V. CALVIN, M.D., 294 West Avenue, Bridgeport.

Treasurer, GEORGE B. GARLICK, M.D., Bridgeport.

Councilor, FRANK W. STEVENS, M.D., Bridgeport.

Censors, F. I. NETTLETON, M.D., Shelton; GEORGE R. HERTZBERG, M.D.,
Stamford; E. B. IVES, M.D., Bridgeport.

Annual Meeting, Second Tuesday in April, at Bridgeport;

Semi-Annual, Second Tuesday in October.

BETHEL.

1872 Barber, Alvin Elizur.

1899 Wight, George DeWitt.

BRIDGEPORT.

| | | |
|------|-------------------------------------|---------------------|
| 1896 | Adams, Frederick Joseph..... | 339 West ave. |
| 1920 | Apsel, Abraham..... | 603 Hancock ave. |
| 1916 | Banks, Daniel Tony..... | 254 E. Main |
| 1913 | Beaudry, Joseph Horace..... | 835 State |
| 1913 | Bernstein, Abraham..... | 472 State |
| 1904 | Bill, Philip Worcester..... | Professional Bldg. |
| 1900 | Blank, Elmer Francis..... | 387 Noble ave. |
| 1886 | Blodget, Henry..... | 819 Myrtle ave. |
| 1880 | Bowers, William Cutler..... | 336 State |
| 1920 | Burns, Bernard John..... | 1683 East Main |
| 1919 | Calvin, Claudius Virgil..... | 294 West ave. |
| 1920 | Carroll, Francis Patrick..... | 1310 Park ave. |
| 1920 | Cheney, Maurice Lionel..... | 2591 Main |
| 1914 | Clarke, Harold Metcalf..... | 477 State |
| 1916 | Cohen, Joseph..... | 1130 Stratford ave. |
| 1906 | Coops, Frank Harvey..... | 386 John |
| 1891 | Cowell, George B..... | 409 Noble ave. |
| 1921 | Coyle, Anna Elizabeth Mulheron..... | 1963 Main |
| 1921 | Coyle, Bruce J..... | 1963 Main |
| 1913 | Curley, William Henry..... | 725 Park ave. |
| 1908 | Curran, Philip John..... | Professional Bldg. |

| | | |
|------|-----------------------------------|------------------------|
| 1894 | Day, Fessenden Lorenzo..... | 819 Myrtle ave. |
| 1920 | DeLuca, Horatio Roger..... | 763 Noble ave. |
| 1888 | DeWolfe, Daniel Charles..... | 516 Fairfield ave. |
| 1914 | Duesing, Herman..... | 1169 E. Main |
| 1898 | Ellis, Thomas Long..... | 332 West ave. |
| 1913 | Finkelstone, Benjamin Brooks..... | 346 State |
| 1915 | Finnegan, John Hamill..... | 1116 Stratford ave. |
| 1895 | Fitzgerald, Edward..... | 526 E. Washington ave. |
| 1897 | Fleck, Harry Willard..... | 897 Lafayette |
| 1914 | Flynn, John Francis..... | 72 Franklin |
| 1895 | Ford, George Skiff..... | 522 Fairfield ave. |
| 1908 | Formichelli, Giovanni..... | 654 Pembroke |
| 1916 | Gade, Carl Johannes..... | 525 State |
| 1907 | Gardner, Charles Wesley..... | 449 State |
| 1916 | Garlick, George Burroughs..... | 474 State |
| 1878 | Garlick, Samuel Middleton..... | 474 State |
| 1916 | Gilday, James Lowrey..... | 952 State |
| 1884 | Godfrey, Charles Cartlidge..... | 340 State |
| 1895 | Gold, James Douglass..... | 839 Myrtle ave. |
| 1908 | Greenstein, Morris Jacob | 572 Bostwick ave. |
| 1916 | Griffin, Daniel Patrick..... | 1350 E. Main |
| 1920 | Groark, Owen J..... | 1691 Main |
| 1913 | Hale, Fraray | 477 State |
| 1914 | Hart, Benjamin Ide..... | 451 State |
| 1920 | Havey, Leroy Austin..... | 329 West ave. |
| 1909 | Hawley, George Waller..... | Professional Bldg. |
| 1916 | Healy, Thomas Francis..... | 25 Yale |
| 1915 | Hippolitus, Paul DiFrancesca..... | 255 Barnum ave. |
| 1916 | Horn, Martin Isidore..... | 815 North ave. |
| 1917 | Horwitz, Morris Thomas..... | 986 Stratford ave. |
| 1920 | Howard, Joseph Henry..... | 856 Fairfield ave. |
| 1912 | Hyde, Charles Elias..... | Professional Bldg. |
| 1906 | Ives, Eli Butler..... | 284 West ave. |
| 1920 | James, Herman Houghton..... | 1813 Barnum ave. |
| 1898 | Johnson, John Murray..... | 276 West ave. |
| 1912 | LaField, William Arthur..... | Professional Bldg. |
| 1913 | Lambert, Henry Bertram..... | Professional Bldg. |
| 1904 | Leverly, Charles Joseph..... | 42 James |
| 1895 | Lockhart, Reuben Arthur..... | 760 Washington ave. |
| 1887 | Lynch, John Charles..... | 826 Myrtle ave. |
| 1904 | Lynch, Robert Joseph..... | 52 Courtland |
| 1914 | McCarthy, Daniel Joseph..... | 778 Washington ave. |
| 1913 | McGovern, Edward Francis..... | 906 Lafayette |
| 1913 | McQueeney, Andrew..... | 700 Noble ave. |
| 1892 | Miles, Henry Shillingford..... | 417 State |
| 1901 | Nettleton, Irving LaField..... | 775 Washington ave. |

| | | |
|------|-------------------------------------|---------------------|
| 1919 | Neumann, Henry Aaron..... | 1635 Fairfield ave. |
| 1920 | Nickum, John Stanley..... | 1549 Fairfield ave. |
| 1891 | Ober, George Eugene..... | Professional Bldg. |
| 1920 | O'Connell, John G..... | 881 Lafayette |
| 1894 | O'Hara, William James Aloysius..... | 361 Barnum ave. |
| 1888 | Osborn, George Wakeman..... | 888 Broad |
| 1920 | Pardanyi, Emil Joseph..... | 645 Bostwick ave. |
| 1920 | Pasuth, Bartholomew Charles..... | 364 Bunnell |
| 1909 | Patterson, Daniel Cleveland..... | Professional Bldg. |
| 1913 | Peters, Henry LeBaron..... | 871 Park ave. |
| 1917 | Powers, John Thomas Haliburton..... | 1069 Barnum ave. |
| 1907 | Pratt, Nathan Tolles..... | 1221 Stratford ave. |
| 1905 | Pyle, Francis Winthrop..... | Professional Bldg. |
| 1916 | Quinn, John Francis..... | 225 Colorado ave. |
| 1916 | Reich, Upton Sharetts..... | 2162 N. Main |
| 1918 | Roberts, Edward Russell..... | Professional Bldg. |
| 1913 | Roche, Thomas Joseph..... | 727 Park ave. |
| 1913 | Rowe, Michael Joseph..... | 521 State |
| 1913 | Sansome, Nicola Maria..... | 430 State |
| 1906 | Schulz, Herman Samuel..... | 906 Lafayette |
| 1914 | Scrimgeour, Arthur..... | Professional Bldg. |
| 1913 | Shea, John Francis..... | 1254 E. Main |
| 1920 | Simonson, Louis..... | 529 E. Main |
| 1903 | Smith, Dorland..... | 834 Myrtle ave. |
| 1902 | Smith, Frank Llewellyn..... | 2178 Main |
| 1919 | Smith, Stanton Reinhart..... | Professional Bldg. |
| 1913 | Smykowski, Bronislaw Louis..... | 405 Barnum ave. |
| 1898 | Smyth, Herbert Edmund | 376 John |
| 1909 | Sprague, Charles Harry..... | 29 Hanover |
| 1903 | Stevens, Frank William..... | 829 Myrtle ave. |
| 1919 | Strang, Robert Hallock Wright..... | 886 Main |
| 1920 | Taylor, Clifton Clark..... | 180 Pacific |
| 1898 | Townsend, Charles Rodman..... | 446 State |
| 1897 | Trecartin, David Munson..... | Professional Bldg. |
| 1895 | Tukey, Frank Martin..... | Professional Bldg. |
| 1903 | Warner, George Howell..... | Professional Bldg. |
| 1902 | Wason, David Boughton..... | Professional Bldg. |
| 1904 | Waterhouse, Henry Edwin..... | 30 Elmwood pl. |
| 1906 | Watson, William Clark..... | 446 Stratford ave. |
| 1920 | Watts, Joseph Francis..... | 518 Fairfield ave. |
| 1913 | Weadon, William Lee..... | 810 Myrtle ave. |
| 1914 | Weldon, Edwin Bernard..... | 327 Broad |
| 1889 | White, Benjamin Walker..... | 477 State |
| 1919 | Williams, Fred S. | 911 Fairfield ave. |

| | | |
|------|-------------------------------|-----------------|
| 1880 | Wright, John Winthrop..... | 810 Myrtle ave. |
| 1921 | Wunderly, Walter Spencer..... | 1260 East Main |
| 1921 | Zonn, Seymour I..... | 2450 Main |

DANBURY.

| | | |
|------|---------------------------------|--------------------|
| 1902 | Bronson, William Thaddeus..... | 41 West |
| 1888 | Brown, David Chester..... | 330 Main |
| 1891 | Brownlee, Harris Fenton..... | 342 Main |
| 1906 | English, Richard Matthew..... | 39 West |
| 1897 | Gordon, William Francis..... | 26 West |
| 1885 | Lemmer, George Edward..... | 153½ Main |
| 1912 | Moore, Howard Delano..... | 203 Main |
| 1912 | Mullins, Samuel Frederick..... | 116 Main |
| 1911 | Scofield, Everett J. S. | 294 Main |
| 1913 | Smith, Arthur Charles..... | 268 Main |
| 1920 | Stahl, William Martin..... | 303 Main |
| | Stratton, Edward Augustus | 173 Main |
| 1907 | Sunderland, Paul Ulysses..... | 160 Deer Hill ave. |

DARIEN.

| | |
|------|----------------------|
| 1897 | Noxon, George Henry. |
|------|----------------------|

NOROTON.

| | |
|------|-------------------------|
| 1908 | Hoyt, Harold Eliphalet. |
| 1888 | Topping, Jacob Reed. |

FAIRFIELD.

| | |
|------|---------------------------|
| 1883 | Donaldson, William Henry. |
|------|---------------------------|

GREENFIELD HILL.

| | |
|------|--------------------------|
| 1877 | Dunham, Martin VanBuren. |
|------|--------------------------|

GREENWICH.

| | | |
|------|--------------------------------|---------------------------|
| 1894 | Brooks, Frank Terry..... | Rock Ridge |
| 1905 | Burke, William..... | 153 Mason |
| 1904 | Clarke, John Alexander..... | 92 Mason |
| 1917 | Gates, Aaron Billings..... | 160 Milbank ave. |
| 1887 | Griswold, William Loomis..... | 19 W. Elm |
| 1902 | Hyde, Fritz Carleton..... | Putnam St. and Maple ave. |
| 1905 | Hyde, Harriet Baker..... | Putnam St. and Maple ave. |
| 1918 | Knapp, Charles Whittemore..... | 43 Maple ave. |
| 1916 | Knowlton, Don Jerome..... | 83 E. Putnam ave. |
| 1909 | Parker, Edward Oliver..... | 68 E. Putnam ave |

SOUND BEACH.

- 1914 Austin, Albert Elmer.
 1909 Finch, Sarah Elizabeth.

Cos Cob.

Bergin, Thomas E.

HUNTINGTON.

SHELTON.

- 1912 Black, John Eugene.....40 White
 1917 Finn, Edward James.....492 Howe ave.
 1900 Nettleton, Francis Irving.....35 White
 1895 Randall, William Sherman.....241 Coram ave.
 1869 Shelton, Gould Abijah.....40 White

MONROE.

STEPNEY DEPOT.

- 1912 Wales, Frank Joseph.

NEW CANAAN.

- 1899 Brooks, Myre Joel.
 1909 Keeler, Charles B.
 1908 O'Shaughnessy, Edmund Joseph.
 1911 Wheelock, Albert Andrews.

NEWTOWN.

- 1921 Kingman, Edward Lyman

NORWALK.

- 1906 Coburn, Jesse Milton.....55 South Main
 1916 Cram, George Eversleigh.....85 Wall
 1873 Gregory, James Glynn.....5 West ave.
 1907 Hitchcock, Walter9 West ave.
 1880 Huntington, Samuel Henry.....133 Main
 1915 Kellogg, Henry Kirke White.....5 West ave.
 1894 Meek, James Albert.....72 West ave.
 1920 Perry, Mabelle Jeanne.....18 West ave.
 1890 Tracey, William Joseph.....23 West ave.
 1920 Tracey, William Wallace.....23 West ave.
 1904 Turner, Arthur Robert.....8 West ave.

SOUTH NORWALK.

- 1894 Allen, Lauren Melville.....15 Washington
 1894 Bohannon, Charles Gordon.....64 South Main
 1918 Bradley, Theron Robert.....11 Washington
 1906 Burnell, Francis Edwin.....67 South Main
 1896 Sherer, Henry Clifford.....1 Washington
 1921 Sullivan, Daniel Edward.....26 West ave.

REDDING.

1896 Smith, Ernest Herman.

GEORGETOWN.

1917 Deming, William Champion.

RIDGEFIELD.

1917 Allen, Henry Willard.

1912 Bryon, Benn Adelmer.

1921 Eaton, Henry Douglas.

STAMFORD.

1907 Avery, John Waite.....295 Atlantic
 1907 Barnes, Frank Hazelhurst.....North Stamford rd.
 1912 Carroll, Isaiah Francis.....44 Willow
 1904 Cloonan, John Joseph.....37 South
 1916 Costanzo, James Joseph.....384 Atlantic
 1909 Crane, Ralph William.....107 South
 1909 Dichter, Charles Levi.....19 St. John's pl.
 1904 Foster, Dean.....400 Atlantic
 1913 Gandy, Raymond Reeves.....57 Broad
 1909 Godfrey, William Truitt.....88 South
 1908 Harrison, John Francis.....507 Atlantic
 1920 Healey, Thomas Francis.....91 South
 1916 Henderson, Alfred Collard.....17 Suburban ave.
 1901 Hertzberg, George Robert.....40 South
 1918 Hewitt, Alfred Frank.....568 Main
 1908 House, Albert Lewis.....11 Bedford
 1881 Hurlbut, Augustin Moen.....Main & South
 1920 Lamy, Edgar D.....574 Main
 1921 Lawless, Robert Francis.....Stamford Hall
 1904 MacLean, Donald Robert.....87 South
 1911 Nemoitin, Julius.....96 Main
 1885 Phillips, Alfred Noroton.....Glenbrook
 1885 Pierson, Samuel.....61 Broad
 1917 Platt, Daniel Phillips.....17 Suburban ave.
 1893 Rice, Watson Emmons.....192 Summer
 1891 Schavoir, Frederick.....38 Willow
 1894 Sherrill, George.....700 Main
 1909 Shirk, Samuel Martin.....87 Broad
 1917 Smith, William Earl.....400 Atlantic
 1907 Staub, John Howard.....100 South
 1919 Weaver, Bruce Stevens.....Stamford Hosp.

SPRINGDALE.

1920 Keeler, Maxwell Gordon.

1920 Stringfield, Oliver Linwood.

STRATFORD.

- 1884 Cogswell, William Badger.....2252 Main
 1909 Howland, DeRuyter.....E. Broadway & Main
 1885 Lewis, George Frederick.....952 E. Broadway

TRUMBULL.

LONG HILL.

- 1912 Smith, George Arthur.

WESTON.

LYONS PLAINS.

- 1877 Gorham, Frank.

WESTPORT.

- 1915 Brodsky, Emanuel Schlema.
 1913 McLaury, Frank Harold.
 1898 Nolan, Jacob Matthew.
 1891 Ruland, Frederick Davis.

GREEN'S FARMS.

- 1920 Cowen, Melville Eugene.
 1893 McFarland, David Walter.

OUT OF COUNTY.

- 1896 Craig, Charles Franklin.....U. S. Army
 1920 Dunning, Zopher F.....125 Bridgeport ave., Devon, Milford
 1917 Heady, Carlton Kellogg.....48 Broad st., Milford
 1919 Hipkiss, George.....929 Massachusetts ave., Cambridge, Mass.
 Walsh, Joseph William.....Portland
 1919 Wilkes, LeRoy Augustus.....Address unknown

Total Number 229

HARTFORD COUNTY.

President, THOMAS G. ALCORN, M.D., Thompsonville.

Vice President, EDWARD R. LAMPSON, M.D., Hartford.

Secretary, C. BREWSTER BRAINARD, M.D., Hartford.

Councilor, WALTER R. STEINER, M.D., Hartford.

Censors, HENRY F. STOLL, M.D., T. EBEN REEKS, M.D.,

JOHN H. T. SWEET, JR., M.D.

Annual Meeting, First Tuesday in April; Semi-Annual Meeting,
 Fourth Tuesday in October.

BERLIN.

EAST BERLIN.

1908 Hodgson, Thomas Cady.

KENSINGTON.

1877 Griswold, Roger Matthew.

BRISTOL.

1900 Brackett, Arthur Stone.

1921 Jennings, Francis B.

1921 Park, Paul A.

1909 Whipple, Benedict Nolasco.

CANTON.

COLLINSVILLE.

1906 Cox, Ralph Benjamin.

1917 Kilbourn, Carl James.

EAST HARTFORD.

1909 Haylett, Howard Bulkley.

1890 Mayberry, Franklin Hayden.

1893 O'Connell, Thomas Smith.

1916 Onderdonk, Harry Jay.

1912 Truex, Edward Hamilton.

EAST WINDSOR.

BROAD BROOK.

1898 Deane, Henry Augustus.

ENFIELD.

THOMPSONVILLE.

1909 Alcorn, Thomas Grant.

1906 Bridge, John Law.

1906 Dowd, Michael Joseph.

1878 Finch, George Terwilliger.

1916 Simonton, Frank F.

1917 Vail, Edwin Smith.

1917 Vail, Thornton E.

FARMINGTON.

1909 Griswold, Arthur Heywood.

1912 Phelps, Stuart E.

GLASTONBURY.

SOUTH GLASTONBURY.

1897 Rising, Harry Breed.

HARTFORD.

| | | | |
|------|----------------------------------|--------|------------------|
| 1883 | Abrams, Alva Elnathan..... | 54 | Church |
| 1904 | Adams, Henry Eli..... | 194 | High |
| 1884 | Alton, Charles DeLancey..... | Drawer | 1325 |
| 1881 | Axtelle, John Franklin..... | 561 | Main |
| 1904 | Backus, Harold Simeon..... | 179 | Allyn |
| 1895 | Bailey, Michael Angelo..... | 438 | Main |
| 1913 | Bailey, Neil Herbert..... | 248 | Laurel |
| 1889 | Barrows, Benjamin Safford..... | 164 | High |
| 1886 | Beach, Charles Coffing..... | 54 | Woodland |
| 1907 | Beach, Charles Thomas..... | 75 | Pratt |
| 1894 | Bell, George Newton..... | 44 | High |
| 1920 | Berman, Harry..... | 65 | Windsor ave. |
| 1909 | Bickford, Henry..... | 57 | Magnolia |
| 1913 | Biram, James Harrington..... | 54 | Church |
| 1913 | Birdsong, Julian Lee..... | 365 | Church |
| 1907 | Blair, Edward Holden..... | 302 | Church |
| 1909 | Borden, Charles Herbert..... | 36 | Pearl |
| 1897 | Botsford, Charles Porter..... | 219 | Collins |
| 1907 | Boucher, James Joseph..... | 54 | Church |
| 1896 | Boucher, John Bernard..... | 25 | Charter Oak ave. |
| 1920 | Boyce, Robert Valentine..... | 17 | Sisson ave. |
| 1913 | Boyle, Robert Joseph..... | 902 | Main |
| 1905 | Bradley, Mark Spaulding..... | 36 | Pearl |
| 1903 | Brainard, Clifford Brewster..... | 30 | Farmington ave. |
| 1916 | Branon, Anthony William..... | 112 | High |
| 1912 | Brayton, Howard Wheaton..... | 44 | High |
| 1896 | Bunce, Philip Dibble..... | 30 | Farmington ave. |
| 1914 | Cantarow, Daniel..... | 73 | Windsor |
| 1915 | Carter, Earl Buel..... | 137 | High |
| 1898 | Chester, Thomas Weston..... | 50 | Farmington ave. |
| 1905 | Clifton, Harry Colman..... | 30 | Farmington ave. |
| 1896 | Cochran, Levi Bennett..... | 50 | Farmington ave. |
| 1913 | Cogswell, Eliot Sanborn..... | 232 | Church |
| 1904 | Conklin, James Henry..... | 89 | Pratt |
| 1889 | Cook, Ansel Granville..... | 54 | Pratt |
| 1913 | Costello, Henry Nicholas..... | 148 | High |
| 1921 | Cragin, Donald Brett..... | 179 | Allyn |

| | | | |
|------|----------------------------------|------|-------------------|
| 1899 | Crossfield, Frederick Solon..... | 75 | Pratt |
| 1913 | Crowley, William Holmes..... | 15 | Charter Oak ave. |
| 1920 | Daley, William Patrick..... | 98 | Ann |
| 1914 | Daly, Charles William..... | 429 | Capitol ave. |
| 1909 | DeBonis, Domenico A. | 94 | Windsor |
| 1914 | Deming, Clinton Demas..... | 29 | Wethersfield ave. |
| 1914 | Deming, Edward Adams..... | 1 | Spring |
| 1896 | Dickerman, Wilton Elias..... | 30 | Farmington ave. |
| 1892 | Dowling, John Francis..... | 54 | Church |
| 1910 | Dwyer, Richard Joseph..... | 186 | Franklin ave. |
| 1916 | Dwyer, William..... | 18 | Asylum |
| 1915 | Elliott, Calvin Hayes..... | 137 | High |
| 1895 | Elmer, Edward Oliver..... | 805 | Park |
| 1914 | Emmett, Francis Arthur..... | 120 | Ann |
| 1900 | Enders, Thomas Burnham..... | 3 | Highland |
| 1919 | Fay, William James..... | 580 | Asylum ave. |
| 1898 | Felty, John Wellington..... | 902 | Main |
| 1911 | Fischer, Abraham..... | 561 | Albany ave. |
| 1913 | Flaherty, Claude Vincent..... | 305 | Park |
| 1919 | Furniss, Henry Watson..... | 1329 | Main |
| 1916 | Gallivan, Thomas Henry..... | 18 | Asylum ave. |
| 1898 | Gill, Michael Henry..... | 36 | Pearl |
| 1879 | Gladwin, Ellen Hammond..... | 705 | Asylum ave. |
| 1900 | Goodrich, Charles Augustus..... | 5 | Haynes |
| 1908 | Griggs, John Bagg..... | 1380 | Asylum ave. |
| 1921 | Hall, Crowell Clarinton..... | 206 | Farmington ave. |
| 1913 | Harrington, Amos Thomas..... | 137 | High |
| 1908 | Hatheway, Clarence Morris..... | 110 | High |
| 1907 | Hepburn, Thomas Norval..... | 42 | High |
| 1906 | Heublein, Arthur Carl..... | 42 | High |
| 1919 | Higgins, Joseph Ambrose..... | 25 | Charter Oak ave. |
| 1920 | Hurwitz, Herman Max..... | 112 | Windsor ave. |
| 1917 | Hutchinson, James Elder..... | 36 | Pearl |
| 1882 | Ingalls, Phineas Henry..... | 49 | Pearl |
| 1912 | Jarvis, Henry Gildersleeve..... | 42 | High |
| 1889 | Kane, Thomas Francis..... | 517 | Main |
| 1908 | Keith, Albert Russell..... | 50 | Farmington ave. |
| 1920 | Kelly, Claude Currie..... | 179 | Allyn |
| 1898 | Kilbourn, Joseph Austin..... | 271 | Park |
| 1920 | Kilbourn, Joseph Birney..... | 112 | High |
| 1906 | Kingsbury, Isaac William..... | 36 | Pearl |
| 1877 | Knight, William Ward..... | 254 | Trumbull |
| 1901 | Lampson, Edward Rutledge..... | 137 | High |
| 1913 | Landry, Arthur Bernard..... | 50 | Farmington ave. |

| | | |
|------|-----------------------------------|--------------------|
| 1895 | Lawton, Franklin Lyman..... | 295 Main |
| 1920 | Leichner, William..... | 66 Farmington ave. |
| 1915 | Locke, Harry Leslie Franklin..... | 1 Spring |
| 1916 | Lynch, James Francis..... | 190 Church |
| 1910 | McClellan, William Ernest..... | 18 Asylum |
| 1898 | McCook, John Butler..... | 390 Main |
| 1901 | McKee, Frederick Lyman..... | 68 Pratt |
| 1907 | McPartland, Patrick Farrell..... | 1305 Main |
| 1916 | McPherson, Sidney Horace..... | 803 Main |
| 1913 | Madden, Leon Irving..... | 54 Church |
| 1919 | Maislen, Samuel..... | 356 Windsor ave. |
| 1907 | Martelle, Henry Augustus..... | P. O. Box 9 |
| 1914 | Meagher, William Francis..... | 75 Francis ave. |
| 1886 | Miller, George Root..... | 151 Church |
| 1916 | Miller, James Raglan..... | 353 Church |
| 1901 | Miller, William Radley..... | 54 Church |
| 1908 | Molumphy, David James..... | 517 Main |
| 1880 | Morgan, William Dennison..... | 49 Pearl |
| 1909 | Morrissey, Michael Joseph..... | 18 Asylum |
| 1919 | Murphy, James Edw. | 50 Farmington ave. |
| 1893 | Murphy, Walter Graham..... | 75 Pratt |
| 1897 | Naylor, James Henry..... | 11 Main |
| 1916 | O'Brien, Joseph Francis..... | 18 Asylum |
| 1921 | O'Brien, Thomas F..... | 289 Park |
| 1902 | O'Flaherty, Ellen Pembroke..... | 140 Main |
| 1921 | Osborn, Stanley Hart..... | 12 Vineland ter. |
| 1908 | Outerson, Andrew Mausergh..... | 350 Church |
| 1904 | Owens, William Thomas..... | 703 Main |
| 1921 | Page, Charles Whitney..... | 94 Woodland |
| 1919 | Parker, John Woodcock..... | 241 Laurel |
| 1905 | Pierson, John Corbin..... | 50 Windsor ave. |
| 1885 | Porter, William, Jr. | 179 Allyn |
| 1920 | Quaglia, Michael..... | 68 Ann |
| 1916 | Radom, Fannie..... | 244 Windsor |
| 1913 | Reardon, William Francis..... | 803 Main |
| 1900 | Reinert, Emil Gustav..... | 109 Ann |
| 1916 | Reynolds, Harry Stephen..... | 683 Asylum |
| 1909 | Rooney, James Francis..... | 308 Park |
| 1883 | Root, Edward King..... | 49 Pearl |
| 1884 | Root, Joseph Edward..... | 67 Pearl |
| 1900 | Rowley, Alfred Merriman..... | 803 Main |
| 1910 | Rowley, John Carter..... | 50 Farmington ave. |
| 1907 | Rowley, Robert Lee..... | 49 Pearl |
| 1911 | Russ, Henry Camp..... | 114 Woodland |

| | | |
|------|----------------------------------|---------------------|
| 1902 | Ryan, Patrick Joseph..... | 316 Park |
| 1916 | Sagarino, John Francis..... | 298 Church |
| 1920 | Schaefer, Jacob..... | 30 Farmington ave. |
| 1887 | Segur, Gideon Cross..... | 67 Farmington ave. |
| 1920 | Shafer, Alexander..... | 1263 Main |
| 1920 | Shea, Daniel Edward..... | 54 Church |
| 1886 | Simpson, Frederick Thomas..... | 799 Asylum ave. |
| 1901 | Smith, Earl Terry..... | 36 Pearl |
| 1897 | Standish, James Herbert..... | 479 Albany ave. |
| 1905 | Starr, Robert Sythoss..... | 179 Allyn |
| 1902 | Steiner, Walter Ralph..... | 646 Asylum ave. |
| 1894 | Stern, Charles Seymour..... | 75 Pratt |
| 1919 | Stockwell, William Myron..... | State Sanatorium |
| 1905 | Stoll, Henry Farnam..... | Sage Allen Bldg. |
| 1903 | Storrs, Eckley Raynor..... | 179 Allyn |
| 1914 | Strobel, Joseph Eugene..... | State Sanatorium |
| 1892 | Sullivan, Daniel Francis..... | 190 Church |
| 1908 | Swan, Horace Cheney..... | 196 Whitney |
| 1914 | Sweet, John Henry Throop..... | 232 Church |
| 1905 | Swett, Paul Plummer..... | 803 Main |
| 1888 | Taft, Charles Ezra..... | 50 Farmington ave. |
| 1906 | Taylor, Maude Winifred..... | 107 Edwards |
| 1921 | Thenebe, Carl Leonard..... | 417 Albany ave. |
| 1898 | Thompson, Emma Jane..... | 154 Church |
| 1906 | Thompson, Whitefield Nelson..... | 400 Washington |
| 1911 | Tracy, Dwight Wallace..... | 5 Wethersfield ave. |
| 1908 | Tuch, Morris..... | 1333 Main |
| 1919 | Tucker, George Eugene..... | Ætna Life Ins. Co. |
| 1907 | Turbert, Edward Joseph..... | 30 Sisson ave. |
| 1908 | Vail, George Francis..... | 36 Pearl |
| 1904 | VanStrander, William Harold..... | 179 Church |
| 1917 | Vernlund, Carl Frithof..... | 211 Church |
| 1921 | Vershbow, Nathan..... | 813 Park |
| 1894 | Waite, Frank Lewis..... | 68 Pratt |
| 1914 | Waite, Robert Lester..... | 68 Pratt |
| 1908 | Ward, James Ward..... | 437 Capitol ave. |
| 1909 | Waterman, Paul..... | 137 High |
| 1895 | Waters, John Bradford..... | 281 Trumbull |
| 1895 | Weir, Janet Marshall..... | 282 Sigourney |
| 1907 | Welch, Thomas Francis..... | 356 Windsor |
| 1920 | Weld, Stanley Burnham..... | 156 High |
| 1916 | Wells, Donald Breckenridge..... | 2 Garden |
| 1903 | Wells, Ernest Alden..... | 2 Garden |
| 1907 | Wiedman, Otto George..... | 137 High |

| | | | |
|------|--------------------------------|-----|--------|
| 1907 | Wilson, James Cornelius..... | 164 | High |
| 1904 | Witter, Orin Russell..... | 44 | High |
| 1889 | Wolff, Arthur Jacob..... | 904 | Main |
| 1916 | Worthen, Thacher Washburn..... | 54 | Church |
| 1912 | Yergason, Robert Moseley..... | 54 | Church |

MANCHESTER.

| | |
|------|---------------------|
| 1909 | Sharpe, Harry Rabe. |
|------|---------------------|

SOUTH MANCHESTER.

| | |
|------|-----------------------------------|
| 1920 | Allen, Edward Bartlett. |
| 1917 | Burlingame, C. Charles. |
| 1905 | Burr, Noah Arthur. |
| 1916 | Holmes, LeVerne. |
| 1908 | May, George William. |
| 1916 | Moore, Demarquis DeCasso Ye Rujo. |
| 1911 | Rice, Richard William. |
| 1900 | Sloan, Thomas George. |
| 1880 | Tinker, William Richard. |
| 1893 | Weldon, Thomas Henry. |

NEW BRITAIN.

| | | | |
|------|----------------------------------|-----|--------------|
| 1909 | Bodley, George Houghton..... | 272 | Main |
| 1915 | Bray, Henry Tierney | 48 | Court |
| 1895 | Clark, Robert Moses..... | 27 | Walnut |
| 1913 | Cooley, Clifton Mather..... | 131 | Main |
| 1915 | Dunn, George Washington..... | 259 | Main |
| 1905 | Fromen, Ernest Theodore..... | 272 | Main |
| 1914 | Gillin, Charles Adelbert..... | 183 | Main |
| 1892 | Irving, Samuel Wellington..... | 252 | Main |
| 1908 | Maloney, Maurice Washington..... | 272 | Main |
| 1920 | Mann, Fred James..... | 28 | Court |
| 1912 | Morrissey, William Thomas. | | |
| 1909 | Purney, John..... | 140 | Main |
| 1912 | Reeks, Thomas Eben..... | 9 | Franklin sq. |
| 1896 | Strosser, Herman..... | 59 | Arch |

PLAINVILLE.

| | |
|------|--------------------|
| 1878 | Bull, John Norris. |
|------|--------------------|

ROCKY HILL.

| | |
|------|--------------------------|
| 1880 | Griswold, Julius Egbert. |
| 1904 | Moser, Orin Alexander. |

SIMSBURY.

- 1905 Carver, John Preston.
 1921 Stretch, James.

SOUTHINGTON.

- 1920 Oman, Andrew S.
 1887 Steadman, Willard George.

SUFFIELD.

- 1916 Brown, Harold Morris.
 1906 Gibbs, Joseph Addison.

WEST HARTFORD.

- 1908 Alcott, Ralph Waldo Emerson.....29 N. Main
 1910 Denne, Thomas Harman.....23 S. Main
 1920 Kibby, Sidney Vernon.

WETHERSFIELD.

- 1921 Battey, Percy B.
 1883 Fox, Edward Gager.
 1892 Howard, Arthur Wayland.

WINDSOR LOCKS.

- 1876 Coogan, Joseph Albert.
 1899 Coyle, William Joseph.
 1906 Outerson, Richard.
 1901 Robinson, Myron Potter.

OUT OF COUNTY.

- 1911 Cobb, Albert Edward.....Falls Village
 1902 Purinton, Charles Oscar.....Oteen, N. C., U. S. Army
 1907 Ronayne, Frank Joseph.....U. S. Army
 1885 Wooster, Charles Morris..... 2643 J st., San Diego, Cal.
 Total Number 246

LITCHFIELD COUNTY.

President, JOHN G. ADAM, M.D., Canaan.

Vice President, CHARLES N. WARNER, M. D., Litchfield.

Secretary, HARRY B. HANCHETT, M.D., 55 Main Street, Torrington.

Councilor, ELIAS PRATT, M.D., Torrington.

Censors, H. B. WOODWARD, M. D., W. S. HULBERT, M. D.,

M. J. REIDY, M. D.

Annual Meeting, Fourth Tuesday in April; Semi-Annual, First Tuesday in October.

CANAAN.

FALLS VILLAGE.

1914 Shannon, Thomas Ignatius

1905 Skiff, Francis Sands.

CORNWALL.

WEST CORNWALL.

1873 North, Joseph Howard.

1917 Stevens, Carrie North.

KENT.

1912 Turrill, Henry Smith.

LITCHFIELD.

1888 Buel, John Laidlaw.

1910 Deming, Nelson Lloyd.

1911 Marcy, Robert Adrian.

1894 Page, Charles Ithemar.

1875 Sedgwick, James Theodore.

1910 Turkington, Charles Henry.

1896 Warner, Charles Norton.

NEW HARTFORD.

1915 English, Chester Ferrin.

NEW MILFORD.

1910 Bostwick, Benjamin Earle.

1919 Brennan, John Edward.

1893 Staub, George Edwards.

1905 Wright, George Herman.

NORFOLK.

- 1874 Dennis, Frederic Shepard.
 1890 Hamant, Irving Louis.
 1875 Kendall, John Calvin.
 1909 Pinney, Almon William.
 1919 Quintard, Edward.

NORTH CANAAN.

CANAAN.

- 1902 Adam, John Geikie.
 1874 Camp, Charles Welford.
 1890 Lee, Frank Herbert.

PLYMOUTH.

TERRYVILLE.

- 1913 Lawton, Richard John.
 1919 Woodhouse, Lisle William.
 1914 Woodward, Harold Burton.

SALISBURY.

- 1917 Tuttle, Albert Lake.

LAKEVILLE.

- 1892 Bissell, William Bascom.

SHARON.

- 1882 Bassett, Clarence Wheeler.
 1904 Chaffee, Jerome Stuart.

THOMASTON.

- 1896 Goodwin, Ralph Schuyler.
 1903 Hazen, Robert.
 1910 Kane, James Hugh.

TORRINGTON.

- 1898 Barker, Abram James.....216 Main
 1898 Carlin, Charles Henry.....236 Main
 1917 Chapin, Harry Bailey.....10 Water
 1908 Hanchett, Harry Bigelow.....55 Main
 1903 Hogan, William John.....320 Main
 1917 Kennedy, William Clement.....38 Water
 1887 Moore, Howard Doolittle.....28 Daycoeton pl.

| | | | |
|------|-------------------------------|-----|---------------|
| 1915 | Partree, Homer Tomlinson..... | 72 | Main |
| 1881 | Platt, William Logan..... | 105 | Main |
| 1887 | Pratt, Elias..... | 27 | Daycoeton pl. |
| 1904 | Ryan, Timothy Mayher..... | 31 | Water |
| 1917 | Thomson, Thomas Leonard..... | 10 | Water |
| 1917 | Tynan, James Joseph..... | 79 | Main |
| 1917 | Weed, Floyd Albert..... | 13 | Main |

WASHINGTON.

1908 Wersebe, Frederick William.

WATERTOWN.

1919 Jackson, Charles Warren.
 1897 Loveland, Ernest Kilburn.
 1919 Reade, Edward Godwin.

WINCHESTER.

WINSTED.

1920 Cudworth, Clarence Dean.
 1915 Hartnett, Joseph Daniel.
 1883 Howd, Salmon Jennings.
 1880 Hulbert, William Sharon.
 1904 Kelsey, Ernest Russell.
 1903 Reidy, David Dillon.
 1912 Reidy, Maurice Joseph
 1918 Ward, Horace William.

WOODBURY.

1913 Allen, Howard Sanford.

OUT OF COUNTY.

1898 Robinson, Joseph.....140 Main st., New Britain
 1896 Wadhams, Sanford Hosea.....care Surgeon General, U. S. Army

Total Number 64

MIDDLESEX COUNTY.

President, THOMAS P. WALSH, M. D., Middletown.

Vice President, JAMES H. KINGMAN, M.D., Middletown.

Secretary, SHELDON S. S. CAMPBELL, 158 Broad Street, Middletown.

Councilor, C. FLOYD HAVILAND, M. D., Middletown.

Censors, C. B. CHEDEL, M.D., JAMES T. MITCHELL, M.D.,

C. C. DAVIS, M. D.

Annual Meeting, Second Thursday in April; Semi-Annual, Second
Thursday in October.

CHESTER.

1889 Smith, Frederick Sumner.

CLINTON.

1903 Fox, David Austin.

CROMWELL.

1895 Bush, Charles Ellsworth.

1885 Hallock, Frank Kirkwood.

EAST HADDAM.

1890 Plumstead, Matthew Woodbury.

EAST HAMPTON.

1873 Field, Albert.

1907 Fitch, Frederick Tracy.

MIDDLE HADDAM.

1892 Lawson, George Newton.

ESSEX.

1903 Bradeen, Frederick Barton.

1908 Davis, Charles Clarence.

MIDDLETOWN.

1886 Bailey, John Elmore.....46 Washington

1880 Calef, Jeremiah Francis.....151 Broad

| | | | |
|------|--|-----|-------------------------|
| 1886 | Campbell, Arthur Joseph..... | 120 | Washington |
| 1916 | Campbell, Sheldon Samuel Stratton..... | 158 | Broad |
| 1921 | Chandler, Henry Milligan..... | | Connecticut State Hosp. |
| 1921 | Chandler, Jennie A. Severin..... | | Connecticut State Hosp. |
| 1921 | Cranz, Alvin Henry..... | | Connecticut State Hosp. |
| 1912 | Fauver, Edgar..... | 55 | Mt. Vernon |
| 1921 | Felt, Paul Revere..... | | Connecticut State Hosp. |
| 1900 | Fisher, Jessie Weston..... | 28 | Crescent |
| 1920 | Harvey, Carl Clifford..... | 20 | Silver |
| 1916 | Haviland, Clarence Floyd..... | | Connecticut State Hosp. |
| 1904 | Kingman, James Henry..... | 139 | Broad |
| 1920 | Leak, Roy Leighton..... | | Connecticut State Hosp. |
| 1910 | Loewe, Leonard Joseph..... | 135 | S. Main |
| 1893 | Loveland, John Elijah..... | 93 | Broad |
| 1896 | Maitland, Lewis A. | 54 | Broad |
| 1893 | Mead, Kate Campbell..... | 145 | Broad |
| 1903 | Mitchell, James Thomas..... | 109 | Broad |
| 1899 | Mountain, John Henry..... | 172 | Washington |
| 1896 | Murphy, James..... | 101 | Broad |
| 1896 | Nolan, Daniel Andrew..... | 613 | Main |
| 1916 | O'Brien, Francis Joseph..... | 91 | Broad |
| 1911 | Rinde, J. Hamilton..... | | Connecticut State Hosp. |
| 1919 | Van Cor, Chester Arthur..... | | Connecticut State Hosp. |
| 1904 | Walsh, Thomas Patrick..... | 675 | Main |
| 1921 | Wiseman, Katherine Fricka..... | | Connecticut State Hosp. |
| 1900 | Young, Charles Bellamy..... | 15 | Pleasant |
| 1910 | Zink, Charles Edwin..... | 232 | Main |

OLD SAYBROOK.

| | |
|------|-------------------------|
| 1905 | Grannis, Irwin. |
| 1901 | Luther, Calista Vinton. |

PORTLAND.

| | |
|------|---------------------------|
| 1913 | Burnham, John Ladd. |
| 1910 | Chedel, Charles Brigham. |
| 1877 | Fisher, William Edwin. |
| 1889 | Potter, Frank Edward. |
| 1878 | Stanley, Charles Everett. |

SAYBROOK.

DEEP RIVER.

| | |
|------|------------------------|
| 1892 | French, Howard Truman. |
| 1903 | Pratt, Arthur Milton. |

OUT OF COUNTY.

| | | |
|------|---------------------------|--------------------------------------|
| 1909 | Brown, Louis Raymond..... | Danvers State Hosp., Hathorne, Mass. |
|------|---------------------------|--------------------------------------|

| | | |
|------|----------------------------------|--------------------------------------|
| 1909 | Chillingworth, Felix P. | Tulane Univ., New Orleans, La. |
| 1890 | Coleburn, Arthur Burr..... | 16 Elm, Norwalk |
| 1882 | Keniston, James Mortimer... | 208 Eastern Promenade, Portland, Me. |
| 1907 | Lord, Sidney Archer..... | Nahant Road, Concord, Mass. |
| 1911 | McKendree, Charles A. | 616 Madison ave., New York City |
| 1917 | Petrocelli, Gaetano Gerardo..... | Waterbury |

Total Number 55

NEW HAVEN COUNTY.

President, ROBERT E. PECK, M.D., New Haven.

Vice President, CHARLES H. BROWN, M.D., Waterbury.

Secretary, HERBERT THOMS, M.D., 59 College Street, New Haven.

Councilor, WILLIAM H. CARMALT, M.D., New Haven.

Censors, EDWARD T. BRADSTREET, M.D., FRANK H. WHEELER, M.D.,
CHARLES H. BROWN, M.D.

Annual Meeting, in April; Semi-Annual, in October. Date set
by the Executive Committee.

ANSONIA.

| | | |
|------|------------------------------|------------------|
| 1916 | Aaronson, Michael S. | 410 Main |
| 1887 | Cooper, Louis Edward..... | 256 Wakelee ave. |
| 1916 | Mercer, Clarence H. | 70 Main |
| 1915 | O'Neil, William Henry..... | 194 Main |
| 1907 | Parmelee, Edward Kibbe..... | 50 Main |
| 1916 | Peck, Frederick Johnson..... | 44 Main |
| 1909 | Tolles, Burton Isaac..... | 38 Main |
| 1900 | Wilmot, Louis Howard..... | 38 Main |

BRANFORD.

| | |
|------|----------------------------|
| 1917 | Gaylord, Charles Woodward. |
| 1916 | McQueen, Arthur Samuel. |
| 1886 | Tenney, Arthur John. |

DERBY.

| | | | |
|------|---------------------------------|-----|-----------|
| 1916 | Baldwin, Charles Tomlinson..... | 74 | Olivia |
| 1917 | Kennedy, Paul B. | 51 | Elizabeth |
| 1885 | Loomis, Frank Newton..... | 66 | Elizabeth |
| 1906 | Maguire, Edward O'Reilly..... | 24 | Elizabeth |
| 1910 | Parlato, Michael Antonio..... | 270 | Elizabeth |
| 1890 | Pinney, Royal Watson. | | |
| 1914 | Plunkett, Thomas F. | 18 | Elizabeth |

| | | | |
|------|-----------------------------|-----|-----------|
| 1916 | Richardson, Dwight A. | 178 | Minerva |
| 1899 | Sharpe, Elmer Thomas..... | 12 | Elizabeth |
| 1910 | Treat, William Howard | 240 | Main |

EAST HAVEN.

| | | | |
|------|-------------------------------|-----|---------------|
| 1897 | Holbrook, Charles Werden..... | 596 | Thompson ave. |
|------|-------------------------------|-----|---------------|

GUILFORD.

| | | | |
|------|-------------------------|--|--|
| 1916 | Smith, Frederic DeWitt. | | |
|------|-------------------------|--|--|

HAMDEN.

| | | | |
|------|----------------------|--|--|
| 1904 | Lay, Walter Sidders. | | |
|------|----------------------|--|--|

MOUNT CARMEL.

| | | | |
|------|------------------------|--|--|
| 1890 | Joslin, George Harvey. | | |
|------|------------------------|--|--|

MADISON.

| | | | |
|------|----------------------|--|--|
| 1908 | Rindge, Milo Pember. | | |
|------|----------------------|--|--|

MERIDEN.

| | | | |
|------|-----------------------------------|-----|----------------|
| 1877 | Bradstreet, Edward Thomas..... | 170 | Colony |
| 1900 | Cooke, Joseph Anthony..... | 50 | E. Main |
| 1881 | Eggleston, Jeremiah Dewey..... | 132 | W. Main |
| 1888 | Fenn, Ava Hamlin..... | 30 | Capitol ave. |
| 1889 | Griswold, Frederick Pratt..... | 481 | Broad |
| 1896 | LaPointe, John William Henry..... | 128 | W. Main |
| 1907 | Lockwood, Howard DeForest..... | 248 | E. Main |
| 1917 | McElman, Harry Wilbur..... | 62½ | E. Main |
| 1891 | Meeks, Harold Albert..... | 89 | E. Main |
| 1913 | Murdock, Thomas P. | 42½ | E. Main |
| 1872 | Nickerson, Nehemiah..... | 16 | Washington |
| 1921 | Otis, Fessenden Newport..... | 165 | W. Main |
| 1920 | Otis, Israel Sabine..... | 165 | W. Main |
| 1885 | Otis, Samuel Dickinson..... | 165 | W. Main |
| 1888 | Pierce, Elbridge Worthington..... | | Washington pl. |
| 1916 | Quinlan, Raymond V. | 42½ | E. Main |
| 1913 | Smith, David Parker | 34 | W. Main |
| 1883 | Smith, Edward Weir | 34 | W. Main |
| 1906 | Sullivan, Michael Joseph..... | 77 | W. Main |
| 1921 | Tower, Arthur A..... | 27 | W. Main |
| 1913 | Wilson, Leslie Adams..... | 88 | E. Main |

MILFORD.

- 1913 Fischer, William John Henry.
 1909 Ives, John Wagner.

DEVON.

- 1914 Pons, Louis Jacques.

NAUGATUCK.

- 1913 Baker, Walter Isaac.
 1891 Bull, Thomas Marcus.
 1901 Carroll, John James.
 1916 Claffey, Michael Francis.
 1894 Johnson, Edwin Hines.
 1906 Reilly, Walter A.
 1892 Robbins, James Watson.
 1901 Tuttle, Frank James.
 1914 Woodford, Chester North.

NEW HAVEN.

- 1921 Alderman, Irving Sanders.....336 George
 1902 Allen, Millard Filmore.....65 Dixwell ave.
 1893 Alling, Arthur Nathaniel.....257 Church
 1919 Alpert, Reuben Henry.....47 Sylvan ave.
 1895 Arnold, Ernst Hermann.....1449 Chapel
 1908 Arnold, Harold Sears.....110 Wall
 1893 Bacon, Leonard Woolsey.....113 Whitney ave.
 1916 Baldwin, William Pitt.....1226 Chapel
 1890 Baribault, Arthur Octave.....211 Chapel
 1920 Barker, Creighton.....1173 Chapel
 1900 Barnes, William Samuel.....37 College
 1908 Barrett, William Joseph.....63 Olive
 1896 Bartlett, Charles Joseph.....195 Church
 1905 Bean, William Hill.....40 Pleasant
 1909 Beck, Frederick George.....199 York
 1911 Bercinsky, David.....360 George
 1911 Bergman, Alexander.....53 College
 1898 Bishop, Frederic Courtney.....1241 Chapel
 1907 Blake, Eugene Maurice.....55 Trumbull
 1907 Blumer, George.....195 Church
 1911 Boardman, Albertus Kellogg.....441 Forbes ave.
 1919 Bonoff, Zelly A.387 George
 1919 Bretzfelder, Karl Benjamin.....375 Orange
 1919 Brown, Kent Oakley.....131 Mansfield
 1916 Burke, William Patrick Joseph.....466 Dixwell ave.

| | | | |
|------|-------------------------------------|------|--------------------|
| 1913 | Butler, Wilda Edwin..... | 223 | York |
| 1904 | Butler, William James..... | 712 | Howard ave. |
| 1916 | Carelli, Genesis Frank..... | 541 | Chapel |
| 1877 | Carmalt, William Henry..... | 261 | St. Ronan |
| 1914 | Carroll, Charles Henry..... | 1179 | Chapel |
| 1892 | Cheney, Benjamin Austin..... | 59 | College |
| 1901 | Cohane, Jeremiah Joseph..... | 59 | College |
| 1904 | Cohane, Timothy Francis | 518 | Howard ave. |
| 1917 | Collins, William Francis..... | 336 | St. John |
| 1914 | Comfort, Charles Williams, Jr. | 27 | Elm |
| 1915 | Comstock, Fred Walter..... | 552 | Howard ave. |
| 1914 | Conte, Harry Albert..... | 158 | St. John |
| 1887 | Converse, George Frederick..... | 1 | Whalley ave. |
| 1916 | Cooney, William Joseph..... | 342 | Grand ave. |
| 1921 | Creadick, Abraham Nowell..... | | New Haven Hospital |
| 1897 | Crowe, Willis Hanford..... | 59 | College |
| 1886 | DeForest, Louis Shepard..... | 335 | Orange |
| 1920 | Deming, Charles Kenneth..... | 257 | Church |
| 1908 | Diefendorf, Allen Ross..... | 129 | Church |
| 1915 | Dryfus, Milton Leopold..... | 193 | York |
| 1921 | Dunham, Ethel Collins..... | | New Haven Hospital |
| 1882 | Eliot, Gustavus..... | 209 | Church |
| 1914 | Esposito, Joseph Vincent..... | 96 | Greene |
| 1913 | Ferguson, Robert John..... | 59 | College |
| 1892 | Ferris, Harry Burr..... | 395 | St. Ronan |
| 1917 | Flynn, David Aloysius..... | 352 | Grand ave. |
| 1898 | Flynn, James Henry Joseph..... | 195 | Church |
| 1920 | Foley, Francis Edward..... | 588 | Ferry |
| 1888 | Foote, Charles Jenkins..... | 60 | Elm |
| 1907 | Ford, Alice Porter..... | 1400 | Chapel |
| 1920 | Geraci, Lucian Arthur..... | 546 | Chapel |
| 1910 | Goldberg, Samuel James..... | 37 | College |
| 1912 | Goldman, George..... | 152 | Temple |
| 1897 | Gompertz, Louis Michael..... | 1195 | Chapel |
| 1921 | Gordon, Robert Kelnar..... | 784 | Orange |
| 1919 | Grodzinsky, Herman Wolmer..... | 840 | Howard ave. |
| 1914 | Harten, James Aloysius..... | 1138 | Chapel |
| 1903 | Hartshorn, Willis Ellis..... | 67 | Trumbull |
| 1881 | Hawkes, William Whitney..... | 31 | High |
| 1916 | Hendricks, Albert Ludwig..... | 26 | Trumbull |
| 1907 | Henze, Carl William | 466 | Orange |
| 1908 | Herbert, Archibald Cecil..... | 256 | McKinley ave. |
| 1921 | Hersey, Harold Waters..... | | New Haven Hospital |
| 1912 | Hershman, Abram Aron..... | 6 | High |

| | | | |
|------|----------------------------------|------|--------------------|
| 1908 | Hessler, Herman Philip..... | 323 | George |
| 1916 | Hirata, Isao..... | 356 | Elm |
| 1915 | Hynes, Frederick Henry..... | 196 | York |
| 1903 | Hynes, Thomas Vincent..... | 1441 | Chapel |
| 1914 | Jackowitz, Gabriel..... | 347 | Orange |
| 1914 | James, George Richard..... | 686 | State |
| 1919 | Johnson, Edgar Mayer..... | 198 | Park |
| 1911 | Keating, Hugh Francis..... | 619 | Howard ave. |
| 1901 | Kilbourn, Clarence Leishman..... | 202 | Blatchley ave. |
| 1898 | Kirby, Frank Alonzo..... | 355 | Whalley ave. |
| 1912 | Kleiner, Israel..... | 193 | York |
| 1917 | Kleiner, Simon Bretzfelder..... | 1136 | Chapel |
| 1921 | Labovitz, Nathaniel..... | 409 | George |
| 1907 | Lane, John Edward..... | 59 | College |
| 1913 | Lang, William Peter..... | 139 | Dwight |
| 1915 | Lear, Maxwell..... | | New Haven Hospital |
| 1920 | Levy, Daniel Frederick..... | 635 | George |
| 1915 | Levy, Louis Henry | 1172 | Chapel |
| 1911 | Linde, Joseph Irving..... | 163 | York |
| 1878 | Lindsley, Charles Purdy..... | 198 | Sherman ave. |
| 1882 | Luby, John Francis..... | 42 | Howe |
| 1905 | Ludington, Nelson Amos..... | 1252 | Chapel |
| 1921 | MacNish, James Francis..... | 1151 | Chapel |
| 1905 | McDermott, Terrance Stephen..... | 1334 | Chapel |
| 1921 | McDonald, William, Jr..... | 51 | Trumbull |
| 1893 | McDonnell, Ralph Augustine..... | 152 | Temple |
| 1916 | McGuire, Frank J. | 26 | Elm |
| 1913 | McGuire, William Charles..... | 106 | Park |
| 1899 | McIntosh, Edward Francis..... | 307 | Alden ave. |
| 1900 | Maher, James Stephen..... | 261 | Orange |
| 1889 | Maher, Stephen John..... | 212 | Orange |
| 1878 | Mailhouse, Max..... | 195 | Church |
| 1921 | Marantz, Bernard Charles..... | 35 | Sylvan ave. |
| 1899 | Mariani, Nicola..... | 119 | Greene |
| 1892 | Marsh, Arthur Washburn..... | 1015 | Whalley ave. |
| 1921 | Massa, Anthony Francis..... | 100 | Wooster |
| 1920 | Maynard, Harry Hilts..... | 882 | Howard ave. |
| 1916 | Mendillo, Anthony Joseph..... | 26 | Elm |
| 1916 | Morse, Arthur..... | 195 | Church |
| 1910 | Murphy, John Aloysius..... | 28 | Edwards |
| 1921 | Murray, Henry F., Jr..... | 152 | Temple |
| 1897 | Nadler, Alfred Goldstein..... | 195 | Church |
| 1921 | Nahum, Louis Herman..... | 252 | York |
| 1904 | Notkins, Louis Adolph..... | 1151 | Chapel |

| | | | |
|------|------------------------------------|------|-------------------|
| 1913 | Nugent, William Huggard..... | 432 | Temple |
| 1920 | O'Brien, William Henry Joseph..... | 59 | College |
| 1885 | Osborne, Oliver Thomas..... | 177 | Church |
| 1881 | Park, Charles Edwin..... | 98 | Elm |
| 1894 | Peck, Robert Ellsworth..... | 1404 | Chapel |
| 1886 | Peckham, Lucy Creemer..... | 345 | Greene |
| 1909 | Phillips, Frank Lyman..... | 413 | Temple |
| 1893 | Pitman, Edwin Parker..... | 52 | Sylvan ave. |
| 1916 | Porter, Donald Wallace..... | 58 | Wall |
| 1894 | Porter, Isaac Napoleon..... | 198 | Dixwell ave. |
| 1903 | Rand, Richard Foster..... | 246 | Church |
| 1903 | Reilly, Francis Henry..... | 230 | Church |
| 1891 | Reilly, James Michael..... | 36 | Hobart |
| 1914 | Reynolds, Harry St. Clair..... | 57 | Trumbull |
| 1890 | Ring, Henry Wilson..... | 185 | Church |
| 1892 | Robinson, Paul Skiff..... | 164 | Grand ave. |
| 1920 | Rogers, Orville Forrest, Jr..... | 257 | Church |
| 1914 | Russell, Thomas Hubbard..... | 57 | Trumbull |
| 1920 | Russo, Joseph Daniel..... | 154 | Chapel |
| 1921 | St. Lawrence, Arthur John..... | 185 | Church |
| 1910 | Sanford, Charles Edwin..... | 59 | College |
| 1897 | Sanford, Leonard Cutler..... | 347 | Temple |
| 1896 | Sanford, Ward Harding..... | 650 | Orange |
| 1911 | Scarbrough, Marvin McRae..... | 122 | College |
| 1915 | Scholl, Robert Frederick..... | 485 | Ferry |
| 1920 | Seabury, Robert Brewster..... | 64 | Grove |
| 1916 | Segnalla, Ernest..... | 516 | Chapel |
| 1914 | Sheahan, Michael J..... | 1287 | Chapel |
| 1915 | Sheahan, William Lawrence..... | 73 | Sherman ave. |
| 1913 | Skiff, Stuart Ernest..... | 1194 | Chapel |
| 1914 | Skiff, Walter C. | 1184 | Chapel |
| 1896 | Slattery, Morris Dove..... | 566 | Howard ave. |
| 1914 | Smirnow, Max Ruskin..... | 862 | Howard ave. |
| 1898 | Smith, Henry Hubert..... | 101 | Elm |
| 1914 | Smith, Marvin | 325 | Humphrey |
| 1896 | Sperry, Frederick Noyes..... | 59 | College |
| 1905 | Spier, Seymour Leopold..... | 359 | Crown |
| 1907 | Standish, Frank Billings..... | 199 | York |
| 1903 | Steele, Henry Merriman..... | 226 | Church |
| 1882 | Stetson, James Ebenezer..... | | Union League Club |
| 1914 | Stetson, Paul Russell..... | 646 | Dixwell ave. |
| 1916 | Stewart, Harry Eaton..... | 1173 | Chapel |
| 1920 | Strauss, Maurice Jacob..... | 193 | York |
| 1911 | Sullivan, Jeremiah Barrett..... | 274 | Dixwell ave. |
| 1897 | Sullivan, John Francis..... | 1346 | Chapel |

| | | |
|------|-----------------------------------|--------------------|
| 1886 | Swain, Henry Lawrence..... | 195 Church |
| 1914 | Sweet, Grover Cleveland..... | 727 Howard ave. |
| 1921 | Sword, Brian Collins..... | Grace Hospital |
| 1921 | Tanner, Monroe J..... | 197 York |
| 1900 | Teele, Julia Ernestine..... | 206 Hamilton |
| 1920 | Terhune, William Barclay..... | 195 Church |
| 1915 | Thoms, Herbert..... | 59 College |
| 1911 | Tileston, Wilder..... | 101 Grove |
| 1909 | Townshend, Raynham..... | 233 Church |
| 1911 | Tracy, Robert Graham..... | 493 Howard ave. |
| 1892 | Tuttle, Charles Alling..... | 196 York |
| 1896 | Verdi, William Francis..... | 27 Elm |
| 1915 | Weed, Arthur Romanzo..... | 1210 Chapel |
| 1919 | Weil, Arthur..... | 1172 Chapel |
| 1902 | Welch, Harry Little | 59 College |
| 1883 | Welch, William Collins..... | 59 College |
| 1917 | Westervelt, Marvin Zabriskie..... | 406 Dixwell ave. |
| 1907 | Wheatley, Louis Frederick..... | Grace Hospital |
| 1884 | Wheeler, Frank Henry..... | 27 Perkins |
| 1915 | White, Herman Robert..... | 416 Oak pl. |
| 1916 | Whiting, Leonard Clark..... | 40 Whalley ave. |
| 1906 | Whittemore, Edward Reed..... | 19 Whitney ave. |
| 1899 | Winne, William Nelson..... | 1020 Whalley ave. |
| 1921 | Wright, Leslie H..... | 150 Shelton ave. |
| 1881 | Wright, Frank Walden..... | 33 Edgewood ave. |
| 1921 | Winternitz, Milton Charles..... | New Haven Hospital |
| 1895 | Wurtenburg, William Charles..... | 98 Elm |
| 1916 | Young, Thomas Herbert..... | 185 Church |
| 1920 | Yudkin, Arthur Meyer..... | 238 York |

NORTH HAVEN.

| | |
|------|-----------------------------|
| 1869 | Goodyear, Robert Beardsley. |
| 1904 | Higgins, Gould Shelton. |

MONTOWESE.

| | |
|------|------------------------|
| 1914 | Nichols, Ralph Wilbur. |
|------|------------------------|

ORANGE.

WEST HAVEN.

| | | |
|------|-----------------------------------|-------------------|
| 1905 | Bevan, Charles A. | 381 Main |
| 1913 | Clarke, Ralph DeBallard..... | 405 Main |
| 1909 | Gilmore, Joseph Leo..... | 366 Main |
| 1904 | Kowalewski, Victor Alexander..... | 597 Campbell ave. |
| 1898 | Phelps, Charles Dickinson..... | 644 Campbell ave. |
| 1915 | Rogers, Platt Harrison..... | 246 Elm |

SEYMOUR.

| | | |
|------|----------------------------|---------------------|
| 1892 | Benedict, Frank Allen..... | 13 Maple |
| 1896 | Davis, Elias Wyman..... | 142 Washington ave. |
| 1913 | Harvey, Edward Regis..... | 119 Main |

WALLINGFORD.

| | | |
|------|-------------------------------|-------------------------|
| 1908 | Buffum, John Harold..... | 145 N. Main |
| 1905 | Lyman, David Russell..... | Gaylord Farm Sanatorium |
| 1911 | McGaughey, James David..... | 261 Center |
| 1881 | Russell, William Spencer..... | 176 N. Main |
| 1919 | Sheehan, Mark Thomas..... | 102 Center |
| 1916 | Smith, Charles Francis..... | 34 N. Whittlesey ave. |
| 1919 | Sweet, Wallace Nathaniel..... | 176 North Main |

WATERBURY.

| | | |
|------|----------------------------------|-----------------|
| 1921 | Alexander, Morris E..... | 133 W. Main |
| 1900 | Anderson, Henry Gray..... | 76 Center |
| 1916 | Anderson, Peyton Fortine..... | 64 Bishop |
| 1874 | Barber, Walter Lewis | 87 N. Main |
| 1910 | Barber, Walter Lewis, Jr. | 87 N. Main |
| 1908 | Bevans, Theodore F..... | 111 W. Main |
| 1916 | Bonner, Robert Alexander..... | 140 N. Main |
| 1910 | Brennan, Patrick Joseph..... | 565 E. Main |
| 1894 | Brown, Charles Henry..... | 57 N. Main |
| 1914 | Callender, Eugene Frederick..... | 164 W. Main |
| 1875 | Castle, Frank Edwin..... | 77 N. Main |
| 1892 | Cooley, Myron Lucius..... | 354 N. Main |
| 1907 | Cowan, Isabel..... | 79 N. Main |
| 1887 | Crane, Augustin Averill..... | 300 W. Main |
| 1916 | DeLuise, Isacco | 312 S. Main |
| | Deming, Dudley..... | 67 Willow |
| 1912 | Dillon, John Henry..... | 337 E. Main |
| 1902 | Dwyer, Patrick James..... | 51 W. Main |
| 1917 | Dye, John Sinclair..... | 111 W. Main |
| 1916 | Egan, John Joseph..... | 131 Baldwin |
| 1905 | Engelke, Charles..... | 50 Leavenworth |
| 1905 | Farrell, John Edward..... | 111 W. Main |
| 1880 | Frost, Charles Warren Selah..... | 54 Central ave. |
| 1907 | Gailey, John Joseph..... | 111 W. Main |
| 1909 | Gancher, Jacob..... | 275 N. Main |
| 1914 | Good, William Murray..... | 26 E. Main |
| 1894 | Goodenough, Edward W. | 44 Leavenworth |
| 1904 | Goodrich, William Albert..... | 6 Abbott ave. |
| 1919 | Gosselin, George A..... | 300 W. Main |
| 1896 | Graves, Frederick George..... | 161 N. Main |
| 1915 | Green, Jacques H..... | 291 N. Main |

| | | |
|------|---------------------------------|----------------|
| 1893 | Hamilton, Charles Allen..... | 15 Arch |
| 1887 | Hayes, John Francis..... | 15 S. Elm |
| 1911 | Herr, Edward Albert..... | 317 N. Main |
| 1919 | Jackson, Andrew Joseph..... | 18 Second ave. |
| 1915 | Johnson, Ernest H. | 164 W. Main |
| 1898 | Kilmartin, Thomas J. | Lilley Bldg. |
| 1914 | Kirschbaum, Edward H. | 20 Grove |
| 1910 | Lawlor, Michael Joseph..... | 158 N. Main |
| | Leonard, George A..... | 18 Abbott ave. |
| 1916 | Licht, William Henry..... | 148 N. Main |
| 1909 | McDonald, Arthur Francis..... | 188 E. Main |
| 1916 | McGrath, John H. | 309 E. Main |
| 1906 | McLarney, Thomas Joseph..... | 27 Cherry |
| 1905 | McLinden, James John..... | 858 N. Main |
| 1897 | Maloney, Daniel Joseph..... | 79 N. Main |
| 1899 | Monagan, Charles Andrew..... | 64 Cooke |
| 1897 | Moriarty, James Ligouri..... | 46 Leavenworth |
| 1887 | Munger, Carl Eugene..... | 81 N. Main |
| 1893 | O'Connor, Patrick Thomas..... | 164 W. Main |
| 1887 | O'Hara, Bernard Augustine..... | 161 E. Main |
| 1901 | Pomeroy, Nelson Asa..... | 76 Center |
| 1916 | Quinn, Raymond J..... | 867 Baldwin |
| 1916 | Riordan, Michael Davitt..... | 853 Bank |
| 1894 | Robbins, George Orrin..... | 192 Grand |
| 1883 | Rodman, Charles Shepard..... | 48 N. Main |
| 1910 | Russell, Edmund..... | 76 Center |
| 1897 | Russell, George Washington..... | 236 Bank |
| 1914 | Ryder, Raymond Harrison..... | 177 Bank |
| 1906 | Smith, Egbert Livingston..... | 292 W. Main |
| 1919 | Smith, George Milton..... | 76 Center |
| 1915 | Spicer, Edmund | 292 W. Main |
| 1906 | Swenson, Andrew Clay..... | 164 W. Main |
| 1902 | Thibault, Louis Joseph..... | 35 Willow |
| 1908 | Variell, Arthur | 133 W. Main |
| 1916 | Vastola, Anthony P. | 99 N. Main |
| 1921 | Wertheimer, John. | |

OUT OF COUNTY.

| | | |
|------|--------------------------------|--|
| 1920 | Anderson, Alexander James..... | Litchfield |
| 1916 | Beckwith, Henry W..... | Address unknown |
| 1889 | Bishop, Louis Bennett..... | California |
| 1913 | Churchman, John Woolman..... | 15 East 10th St., New York City |
| 1914 | Flynn, Charles Thomas.. | Manhattan Eye & Ear Hosp., 210 East 64th st., New York City |
| 1916 | Gessner, Francis Emil..... | care of Surgeon Gen., U. S. Army |
| 1899 | Hammond, Samuel Mowbray..... | 36 Pearl st., Hartford |
| 1917 | Hoegen, Joseph Alton..... | 334 Alexander ave., Bronx, N. Y. |

| | | |
|------|--------------------------------|---|
| 1891 | McNeil, Rollin..... | South Salem, N. Y. |
| 1917 | Merrill, William Truman..... | Boston State Hosp., Mattapan, Mass. |
| 1916 | Morriss, William Haviland..... | U. S. Army |
| 1913 | O'Brien, John F..... | State Sanatorium, Crescent Beach, Niantic |
| 1913 | Prince, Alexander Louis..... | 4 Wilcox st., Wethersfield |
| 1897 | Robbins, Charles Henry..... | 130 Beacon st., Redlands, Cal. |
| 1910 | Rogers, James Frederick..... | U. S. P. H. S., Industrial Division, Wilton, Conn. |
| | | Total Number 347 |

NEW LONDON COUNTY.

President, CARLISLE F. FERRIN, M.D., New London.

Vice President, CHARLES C. GILDERSLEEVE, M.D., Norwich.

Secretary, ALBERT C. FREEMAN, M.D., 89 Union St., Norwich.

Councilor, CHARLES C. GILDERSLEEVE, M.D., Norwich.

Censors, E. P. DOUGLASS, M.D., C. B. GRAVES, M.D., G. H. JENNINGS, M.D.

Annual Meeting, First Thursday in April; Semi-Annual, First
Thursday in October.

COLCHESTER.

1913 Howland, Edward Joseph.

1921 Pendleton, Cyrus E.

EAST LYME.

NIANTIC.

1906 Atkinson, Edward.

1887 Dart, Frederick Howard.

GRISWOLD.

JEWETT CITY.

1876 Jennings, George Herman.

1916 McLaughlin, John Henry.

GROTON.

1916 Barnum, Charles Gardiner.

1918 Douglass, Edmund Latham.

1893 Douglass, Edmund Peaslee.

NOANK.

1904 Hill, William Martin.

LYME.

1909 Devitt, Ellis King.

MONTVILLE.

1915 Donahue, John James.

UNCASVILLE.

1894 Fox, Morton Earl.

NEW LONDON.

| | | | |
|------|---------------------------------|-----|------------------------|
| 1916 | Black, John Torrington..... | 285 | Montauk ave. |
| 1916 | Black, Ross Elliot..... | 581 | Bank |
| 1916 | Cheney, George Philip..... | 62 | Montauk ave. |
| 1895 | Chipman, Edwin Clifford..... | 232 | Williams |
| 1907 | Cronin, William Daniel..... | 23 | Main |
| 1909 | Dunn, Frank Martin..... | 149 | State |
| 1896 | Ferrin, Carlisle Franklin..... | 36 | Huntington |
| 1906 | Ganey, Joseph Matthew..... | 8 | Main |
| 1887 | Graves, Charles Burr..... | 4 | Mercer |
| 1907 | Harrington, James Leon..... | 215 | Montauk ave. |
| 1902 | Henkle, Emmanuel Alexander..... | 51 | Federal |
| 1895 | Heyer, Harold Hankinson..... | 70 | Coit |
| 1909 | Lawson, Stuart Johnston..... | | Manwaring Bldg., State |
| 1901 | Lee, Harry Moore..... | | Gallup lane |
| 1921 | Lena, Hugh F..... | 154 | Broad |
| 1921 | McGinley, Winthrop E..... | 51 | Federal |
| 1921 | Murray, Thomas J..... | 32 | Huntington |
| 1896 | Rogers, Thomas Weaver..... | 43 | Huntington |
| 1914 | Smail, Martin Lawson | | |
| 1921 | Soltz, Thomas..... | 26 | Main |
| 1878 | Stanton, John Gilman..... | 99 | Huntington |
| 1904 | Sullivan, Daniel | 58 | Huntington |
| 1899 | Taylor, John Clifton..... | | Harris Bldg. |
| 1913 | Wilson, Frank E..... | | |
| 1909 | Winship, Ernest Oliver..... | | Manwaring Bldg., State |
| 1920 | Woodruff, Thomas A..... | | Plant Bldg. |

NORTH STONINGTON.

1915 Maine, Thurman Park.

NORWICH.

| | | | |
|------|------------------------------|-----|-------------------------------|
| 1910 | Agnew, Robert Robertson..... | | Thayer Bldg. |
| 1915 | Blackmar, John Stanton..... | 24 | Oneco |
| 1908 | Brophy, Edward Joseph..... | 88 | Central |
| 1884 | Browne, William Tyler..... | 275 | Broadway |
| 1916 | Callahan, John W..... | 308 | Main |
| 1915 | Campbell, Hugh Baird..... | | State Tuberculosis Sanatorium |
| 1909 | Casey, William Bradford..... | 284 | Main |
| 1914 | Cassidy, Louis Thomas..... | 48 | Church |
| 1871 | Cassidy, Patrick..... | 46 | Main |
| 1897 | Donahue, James Joseph..... | 43 | Broadway |
| 1916 | Driscoll, William T. | | Alice Bldg., Main |

| | | |
|------|-----------------------------------|----------------------------|
| 1916 | Freeman, Albert Clark..... | 89 Union |
| 1919 | Gadle, Paul F..... | Thayer Bldg. |
| 1898 | Gildersleeve, Charles Childs..... | 287 Main |
| 1898 | Higgins, Harry Eugene..... | 21 Fairmount |
| 1914 | LaPierre, Arnaud Julian..... | 287 Main |
| 1907 | LaPierre, Leone Franklin..... | 287 Main |
| 1892 | Perkins, Charles Harris..... | Shannon Bldg. |
| 1921 | Sohn, Boris J..... | 265 W. Main |
| 1886 | Tingley, Witter Kinney..... | 35 Main |
| 1920 | Wilcox, Franklin S..... | State Hosp. for the Insane |

TAFTVILLE.

| | |
|------|----------------------|
| 1916 | Pratt, Louis Irving. |
| 1921 | Sussler, David. |
| 1891 | Thompson, George. |

STONINGTON.

MYSTIC.

| | |
|------|----------------------------|
| 1907 | Allyn, Louis Maxson. |
| 1894 | Gray, William Henry. |
| 1921 | Meyers, A H. |
| 1889 | Purdy, Alexander Marshall. |
| 1921 | Stillman, Charles R. |

WATERFORD.

| | |
|------|------------------------|
| 1895 | Minor, George Maynard. |
|------|------------------------|

OUT OF COUNTY.

| | | |
|------|--------------------------------|--|
| 1904 | Fontaine, Alphonse..... | Plainfield |
| 1919 | Klein, Joseph Matthew..... | New Britain |
| 1915 | Lynch, Edward James..... | State Tuberculosis Sanatorium, Shelton |
| 1912 | Williams, Charles Mallory..... | 48 E. 49th St., New York City |

Total Number 74

TOLLAND COUNTY.

President, JOHN P. HANLEY, M.D., Stafford Springs.*Vice President*, THOMAS F. O'LOUGHLIN, M.D., Rockville.*Secretary*, JOHN E. FLAHERTY, M.D., Rockville.*Councilor*, THOMAS F. ROCKWELL, M.D., Rockville.*Censors*, JOHN P. HANLEY, M.D., FREDERICK W. WALSH, M.D.,
THOMAS F. O'LOUGHLIN, M.D.Annual Meeting, Third Tuesday in April; Semi-Annual, Third
Tuesday in October.

COVENTRY.

ROCKVILLE.

1905 Fiske, Isaac Parsons.....R. F. D. 2

SOUTH COVENTRY.

1891 Higgins, William Lincoln.

MANSFIELD.

MANSFIELD DEPOT.

1918 La Moure, Charles TenEyck.

STAFFORD.

STAFFORD SPRINGS.

1917 Dawson, James William.

1908 Hanley, John Patrick.

1921 Moore, Harry

1857 Newton, Cyrus Brownlee.

1879 Smith, Frank Lewis.

TOLLAND.

1890 Simmons, Willard Nelson.

VERNON.

ROCKVILLE.

1908 Bean, Wright Butler.

1908 Dickinson, Francis McLean.

1918 Flaherty, John Edward.

1921 Metcalf, Elliott H.

1897 O'Loughlin, Thomas Francis.

1883 Rockwell, Thomas Francis.

1885 Walsh, Frederick William.

Total Number 16

WINDHAM COUNTY.

President, FRED M. SMITH, M.D., Willimantic.

Vice President, GEORGE T. ZAMARCHE, M.D., Putnam.

Secretary, ROBERT C. PAYNE, M.D., Thompson.

Councilor, S. B. OVERLOCK, M.D., Pomfret.

Censors, J. B. KENT, M.D., W. H. JUDSON, M.D., R. C. WHITE, M.D.

Annual Meeting, Third Thursday in April; Semi-Annual
Meeting, Third Thursday in October.

BROOKLYN.

1919 Tanner, Warren Avery.

HAMPTON.

1914 Marsh, Arthur Drought.

KILLINGLY.

1908 Barnes, George.

DANIELSON.

1905 Burroughs, George McClellan.

1921 Dixon, Henry Campbell.

1883 Hibbard, Nathaniel.

1879 Judson, William Henry.

1918 Kingsbury, Charles Henry.

1909 Perreault, Joseph Napoleon.

1920 Todd, Frank Paige.

PLAINFIELD.

1903 Chase, Arthur Alverdo.

CENTRAL VILLAGE.

1898 Gardner, James Lester.

MOOSUP.

1895 Adams, William Waldo.

1884 Allen, Charles Noah.

1909 Downing, Francis.

POMFRET.

1895 Overlock, Seldom Burden.

PUTNAM.

1905 Bullard, Marguerite Jane.

1871 Kent, John Bryden.

1919 Lamarche, George Tancrede.

1921 McIntosh, John F.

1897 Morrell, Frederick Augustus.

1919 Murphy, Bernard Patrick.

1906 Perry, Edward Franklin.

1921 Phillips, Karl Tristram.

THOMPSON.

1903 Paine, Robert Child.

NORTH GROSVENORDALE.

1906 Roch, Emilien.

WINDHAM.

1888 Guild, Frank Eugene.

WILLIMANTIC.

1891 Girard, Charles Hermenigilde.
 1901 Girouard, Joseph Arthur.
 1919 Hendry, William Edward.
 1896 Hills, Laura Heath.
 1913 Jenkins, Charles Albert.
 1908 Keating, William Patrick Stuart.
 1919 Little, Herman Clark.
 1909 Mason, Louis Irving.
 1907 O'Neill, Owen.
 1906 Simonds, Clarence Eugene.
 1914 Smith, Fred Morse.
 1891 White, Robert Creighton.

WOODSTOCK.

EAST WOODSTOCK.

1913 Pike, Ernest Reginald.

OUT OF COUNTY.

1883 Foster, Warren Woden.....Bureau of Pensions, Washington, D. C.

Total Number 41

SUMMARY.

| | |
|-------------------------|------|
| FAIRFIELD COUNTY | 229 |
| HARTFORD COUNTY | 246 |
| LITCHFIELD COUNTY | 64 |
| MIDDLESEX COUNTY | 55 |
| NEW HAVEN COUNTY | 347 |
| NEW LONDON COUNTY | 74 |
| TOLLAND COUNTY | 16 |
| WINDHAM COUNTY | 41 |
| <hr/> | |
| TOTAL | 1072 |

OFFICERS OF THE CONNECTICUT STATE MEDICAL SOCIETY FROM ITS ORGANIZATION IN 1792 TO THE PRESENT TIME.*

PRESIDENTS.

| | | | |
|------|----------------------|------|------------------------|
| 1792 | Leverett Hubbard. | 1876 | Ashbel W. Barrows. |
| 1794 | Eneas Munson. | 1877 | Robert Hubbard. |
| 1801 | James Potter. | 1878 | Charles M. Carleton. |
| 1803 | Thomas Mosley. | 1879 | Alfred R. Goodrich. |
| 1804 | Jeremiah West. | 1880 | Gideon L. Platt. |
| 1807 | John R. Watrous. | 1881 | William Deming. |
| 1812 | Mason F. Cogswell. | 1882 | William G. Brownson. |
| 1822 | Thomas Hubbard. | 1883 | Elisha B. Nye. |
| 1827 | Eli Todd. | 1884 | Benjamin N. Comings. |
| 1829 | John S. Peters. | 1885 | Elijah C. Kinney. |
| 1832 | William Buel. | 1886 | T. Morton Hills. |
| 1834 | Thomas Miner. | 1887 | Francis Bacon. |
| 1837 | Silas Fuller. | 1888 | George L. Porter. |
| 1841 | Elijah Middlebrook. | 1889 | Orlando Brown. |
| 1843 | Luther Ticknor. | 1890 | Melancthon Storrs. |
| 1846 | Archibald Welch. | 1891 | Charles A. Lindsley. |
| 1849 | George Sumner. | 1892 | Cyrus B. Newton. |
| 1851 | Rufus Blakeman. | 1893 | Francis D. Edgerton. |
| 1853 | Richard Warner. | 1894 | Francis N. Braman. |
| 1854 | William H. Cogswell. | 1895 | Seth Hill. |
| 1856 | Benjamin H. Catlin. | 1896 | Rienzi Robinson. |
| 1858 | Ashbel Woodward. | 1897 | Ralph S. Goodwin. |
| 1861 | Josiah G. Beckwith. | 1898 | Henry P. Stearns. |
| 1863 | Ebenezer K. Hunt. | 1899 | Charles S. Rodman. |
| 1865 | Nathan B. Ives. | 1900 | Leonard B. Almy. |
| 1866 | Isaac G. Porter. | 1901 | John H. Grannis. |
| 1867 | Charles Woodward. | 1902 | Gould A. Shelton. |
| 1868 | Samuel B. Beresford. | 1903 | Samuel B. St. John. |
| 1869 | Henry Bronson. | 1904 | William H. Carmalt. |
| 1870 | Charles F. Sumner. | 1905 | { †Edward H. Welch. |
| 1871 | Gurdon W. Russell. | | { Nathaniel E. Wordin. |
| 1872 | Henry W. Buel. | 1906 | William L. Higgins. |
| 1873 | Ira Hutchinson. | 1907 | Everett J. McKnight. |
| 1874 | Lowell Holbrook. | 1908 | Seldom B. Overlock. |
| 1875 | Pliny A. Jewett. | 1909 | Samuel D. Gilbert. |
| | | 1910 | Frank K. Hallock. |

* Prepared for the Secretary by Dr. J. B. Lewis, Hartford.

† Resigned.

| | | | |
|------|---------------------|------|----------------------|
| 1911 | John G. Stanton. | 1916 | Samuel M. Garlick. |
| 1912 | E. T. Bradstreet. | 1917 | Edward K. Root. |
| 1913 | D. Chester Brown. | 1918 | Charles J. Bartlett. |
| 1914 | { Oliver C. Smith. | 1919 | Charles B. Graves. |
| | { Stephen J. Maher. | 1920 | George Blumer. |
| 1915 | Max Mailhouse. | 1921 | Charles C. Godfrey. |

VICE PRESIDENTS.

| | | | |
|------|----------------------|------|----------------------|
| 1792 | Eneas Munson. | 1870 | Gurdon W. Russell. |
| 1794 | Elihu Tudor. | 1871 | Henry W. Buel. |
| 1796 | James Potter. | 1872 | Ira Hutchinson. |
| 1801 | Thomas Mosley. | 1873 | Lowell Holbrook. |
| 1803 | Jeremiah West. | 1874 | Pliny A. Jewett. |
| 1804 | Jared Potter. | 1875 | Ashbel W. Barrows. |
| 1806 | John R. Watrous. | 1876 | Robert Hubbard. |
| 1807 | Mason F. Cogswell. | 1877 | Charles M. Carleton. |
| 1812 | John Barker. | 1878 | Alfred R. Goodrich. |
| 1813 | Timothy Hall. | 1879 | Gideon L. Platt. |
| 1814 | Thomas Hubbard. | 1880 | William Deming. |
| 1822 | Eli Todd. | 1881 | William G. Brownson. |
| 1824 | Eli Ives. | 1882 | Elisha B. Nye. |
| 1827 | John S. Peters. | 1883 | Benjamin N. Comings. |
| 1829 | William Buel. | 1884 | Elijah C. Kinney. |
| 1832 | Thomas Miner. | 1885 | Samuel Hutchins. |
| 1834 | Silas Fuller. | 1886 | Francis Bacon. |
| 1837 | Elijah Middlebrook. | 1887 | George L. Porter. |
| 1841 | Luther Ticknor. | 1888 | Orlando Brown. |
| 1843 | Archibald Welch. | 1889 | Charles J. Fox. |
| 1846 | Dyer T. Brainard. | 1890 | Charles A. Lindsley. |
| 1847 | George Sumner. | 1891 | Cyrus B. Newton. |
| 1849 | Rufus Blakeman. | 1892 | Francis D. Edgerton. |
| 1851 | Richard Warner. | 1893 | Francis N. Braman. |
| 1853 | William H. Cogswell. | 1894 | Seth Hill. |
| 1854 | Benjamin H. Catlin. | 1895 | Rienzi Robinson. |
| 1856 | Ashbel Woodward. | 1896 | Ralph S. Goodwin. |
| 1858 | Josiah G. Beckwith. | 1897 | Henry P. Stearns. |
| 1861 | Ebenezer K. Hunt. | 1898 | Charles S. Rodman. |
| 1863 | Nathan B. Ives. | 1899 | Leonard B. Almy. |
| 1865 | Isaac G. Porter. | 1900 | John H. Grannis. |
| 1866 | Charles Woodward. | 1901 | Gould A. Shelton. |
| 1867 | Samuel B. Beresford. | 1902 | Samuel B. St. John. |
| 1868 | Henry Bronson. | 1903 | William H. Carmalt. |
| 1869 | Charles F. Sumner. | 1904 | Edward H. Welch. |

‡ Deceased in office.

- 1905 { Frederick A. Morrell.
Eli P. Flint.
1906 { Charles E. Brayton.
Franklin P. Clark.
1907 { Miner C. Hazen.
Irving L. Hamant.
1908 { Samuel D. Gilbert.
Walter L. Barber.
1909 { Theodore R. Parker.
William J. Tracey.
1910 { Edmund P. Douglass.
Edward T. Bradstreet.
1911 { D. Chester Brown.
Ralph C. Paine.
1912 { Frederick Gilnack.
Alvin E. Barber.
1913 { William S. Hulbert.
Kate C. Mead.

- 1914 { Stephen J. Maher.
John B. Kent.
1915 { Charles B. Graves.
Cushman A. Sears.
1916 { George M. Burroughs.
John C. Kendall.
1917 { Patrick Cassidy.
Charles C. Godfrey.
1918 { Frank E. Guild.
James H. Kingman.
1919 { George H. Noxon.
Frank H. Wheeler.
1920 { William H. Judson.
William H. Donaldson.
1921 { Leone F. LaPierre.
Frederick B. Bradeen.

SECRETARIES.

- | | |
|--------------------------|------------------------------|
| 1792 Jared Potter. | 1844 Worthington Hooker. |
| 1794 James Clark. | 1846 Gurdon W. Russell. |
| 1796 Daniel Sheldon. | 1849 Josiah G. Beckwith. |
| 1798 Nathaniel Peery. | 1858 Panet M. Hastings. |
| 1800 Samuel Woodward. | 1862 Leonard J. Sanford. |
| 1801 William Shelton. | 1864 Moses C. White. |
| 1805 John Barker. | 1876 Charles W. Chamberlain. |
| 1810 Eli Ives. | 1883 Samuel B. St. John. |
| 1813 Joseph Foot. | 1889 Nathaniel E. Wordin. |
| 1817 Jonathan Knight. | 1905 Walter R. Steiner. |
| 1827 Samuel B. Woodward. | 1912 Wilder Tileston. |
| 1830 George Sumner. | 1913 Marvin McR. Scarbrough. |
| 1832 Charles Hooker. | 1917 John E. Lane. |
| 1838 Archibald Welch. | 1920 Charles W. Comfort, Jr. |
| 1843 Ralph Farnsworth. | |

TREASURERS.

- | | |
|-------------------------|---------------------------|
| 1792 John Osborn. | 1834 Elijah Middlebrook. |
| 1793 Jeremiah West. | 1837 Luther Tichnor. |
| 1794 John Osborn. | 1841 Virgil Maro Dow. |
| 1796 Mason F. Cogswell. | 1851 George O. Sumner. |
| 1800 William B. Hall. | 1863 James C. Jackson. |
| 1808 Timothy Hall. | 1876 Francis D. Edgerton. |
| 1813 Richard Ely. | 1883 Erastus P. Swasey. |
| 1816 Thomas Miner. | 1889 William W. Knight. |
| 1817 John S. Peters. | 1905 Joseph H. Townsend. |
| 1827 William Buel. | 1916 Phineas H. Ingalls. |
| 1829 Joseph Palmer. | |

**HONORARY MEMBERS OF THE CONNECTICUT STATE
MEDICAL SOCIETY FROM ITS ORGANIZATION
IN 1792 TO THE PRESENT TIME.***

| | | |
|------|-----------------------------|-----------------------|
| 1797 | Felix Pascalis Ouyiere..... | Philadelphia, Pa. |
| 1826 | James Jackson..... | Boston, Mass. |
| | John C. Warren..... | Boston, Mass. |
| | Samuel L. Mitchell..... | New York |
| | David Hosack | New York |
| | Wright Post..... | New York |
| | Benjamin Silliman..... | New Haven, Conn. |
| | George M'Clellan | Philadelphia, Pa. |
| | John Mackie | Philadelphia, Pa. |
| | Charles Eldridge..... | East Greenwich, R. I. |
| | Theodore R. Beck..... | Albany, N. Y. |
| | James Thatcher..... | Plymouth, Mass. |
| 1827 | Joseph White..... | Cherry Valley, N. Y. |
| | William P. Dewees..... | Philadelphia, Pa. |
| | Edward Delafield..... | New York |
| | John Delamater..... | Albany, N. Y. |
| | Walter Channing | Boston, Mass. |
| | Jacob Bigelow | Boston, Mass. |
| 1828 | Philip Syng Physick..... | Philadelphia, Pa. |
| | Lewis Heermann..... | U. S. Navy |
| | Daniel Drake..... | Cincinnati, Ohio |
| | Henry Mitchell..... | Norwich, N. Y. |
| | Nathan R. Smith..... | Baltimore, Md. |
| 1829 | Valentine Mott..... | New York |
| | Samuel White..... | Hudson, N. Y. |
| | Reuben D. Mussey..... | Hanover, N. H. |
| | William Tully..... | New Haven, Conn. |
| 1830 | Richmond Brownell..... | Providence, R. I. |
| 1833 | William Beaumont..... | U. S. Army |
| 1834 | Samuel Henry Dickson..... | Charleston, S. C. |
| 1835 | Samuel Bayard Woodward..... | Worcester, Mass. |
| 1837 | John Stearns..... | New York |
| 1839 | Henry Green..... | Albany, N. Y. |
| | Stephen W. Williams..... | Deerfield, Mass. |
| 1840 | George Frost | Springfield, Mass. |
| 1841 | William Parker..... | New York |
| 1842 | Benjah Ticknor..... | U. S. Navy |
| 1844 | Alden March..... | Albany, N. Y. |

* Prepared for the Secretary in 1918 by Dr. Walter R. Steiner, Hartford.

| | | |
|------|----------------------------|--------------------|
| 1847 | Amos Twitchell..... | Keene, N. H. |
| | Charles A. Lee..... | New York |
| | David S. C. H. Smith..... | Sutton, Mass. |
| 1850 | James M. Smith..... | Springfield, Mass. |
| 1851 | Henry D. Bulkley..... | New York |
| 1852 | J. Marion Sims..... | Montgomery, Ala. |
| | John Watson..... | New York |
| 1854 | Frank H. Hamilton..... | Buffalo, N. Y. |
| | Robert Watts..... | New York |
| 1855 | Mason F. Cogswell..... | Albany, N. Y. |
| | Oliver Wendell Holmes..... | Boston, Mass. |
| | Joseph Sargent | Worcester, Mass. |
| | J. V. C. Smith..... | Boston, Mass. |
| 1856 | Foster Hooper..... | Fall River, Mass. |
| 1857 | Thomas C. Brinsmade..... | Troy, N. Y. |
| | George Chandler | Worcester, Mass. |
| | Gilman Kimball | Lowell, Mass. |
| 1858 | James McNaughton..... | Albany, N. Y. |
| | Usher Parsons..... | Providence, R. I. |
| 1859 | S. D. Willard..... | Albany, N. Y. |
| | John Ware..... | New York |
| 1861 | Ebenezer Alden..... | Randolph, Mass. |
| | B. Fordyce Barker..... | New York |
| 1862 | J. G. Adams..... | New York |
| | Jared Linsley | New York |
| 1863 | A. J. Fuller..... | Bath, Maine |
| 1864 | Samuel H. Pennington..... | Newark, N. J. |
| | Frederick N. Bennett..... | Orange, N. J. |
| | Thomas W. Blatchford..... | Troy, N. Y. |
| | Thomas C. Finnell | New York |
| | N. C. Husted..... | New York |
| | Jacob P. Whittemore..... | Chester, N. H. |
| 1865 | John Green..... | Worcester, Mass. |
| | Thomas Sanborn..... | Newport, N. H. |
| | William Pierson | Orange, N. J. |
| | Arthur Ward | Belleville, N. J. |
| | Hiram Corliss..... | Washington, N. Y. |
| 1866 | E. K. Webster..... | Boscawen, N. H. |
| | P. A. Stackpole..... | Dover, N. H. |
| 1868 | Samuel L. F. Simpson..... | Concord, N. H. |
| | A. T. Woodward..... | Brandon, Vt. |
| | J. C. Hutchinson..... | Brooklyn, N. Y. |
| | William McCollom..... | Brooklyn, N. Y. |
| 1869 | Benjamin Cotting..... | Boston, Mass. |

| | | |
|------|----------------------------|---------------------|
| 1870 | Henry L. Bowditch..... | Boston, Mass. |
| | Seth Shove | New York |
| | Samuel T. Hubbard..... | New York |
| 1873 | Gurdon Buck | New York |
| | George F. Horton..... | Terrytown, Pa. |
| 1880 | A. N. Bell..... | Garden City, L. I. |
| | E. Seguin..... | New York |
| 1882 | Pliny Earle..... | Northampton, Mass. |
| 1883 | J. S. Billings..... | U. S. Army |
| 1884 | James E. Reeves..... | Wheeling, W. Va. |
| | T. A. Emmett..... | New York |
| 1888 | John Dalton | New York |
| 1889 | Edward Moore..... | Rochester, N. Y. |
| 1890 | W. H. Welch..... | Baltimore, Md. |
| 1891 | Robert F. Weir..... | New York |
| 1892 | Sir Joseph Lister..... | London |
| | E. G. Janeway..... | New York |
| | E. R. Squibb..... | Brooklyn, N. Y. |
| 1894 | E. L. B. Stickney..... | Springfield, Mass. |
| | David Webster..... | New York |
| | A. J. C. Skene..... | Brooklyn, N. Y. |
| | Charles E. Gross..... | Hartford, Conn. |
| 1895 | Sir James Grant..... | Ottawa |
| | Henry O. Marcy..... | Boston, Mass. |
| 1896 | W. W. Keen | Philadelphia, Pa. |
| | T. G. Thomas..... | New York |
| | T. M. Prudden..... | New York |
| 1898 | William T. Lusk..... | New York |
| | James W. McLane..... | New York |
| | Landon Carter Gray..... | New York |
| 1899 | F. H. Wiggin..... | New York |
| 1900 | Seneca D. Powell..... | New York |
| | J. W. S. Gouley..... | New York |
| 1903 | Reynold Webb Wilcox..... | New York |
| 1904 | William Osler..... | Baltimore, Md. |
| 1905 | George M. Sternberg..... | Washington, D. C. |
| | Francis Delafield | New York |
| 1906 | William T. Bull..... | New York |
| | Maurice H. Richardson..... | Boston, Mass. |
| 1915 | William C. Gorgas..... | Washington, D. C. |
| 1917 | Richard P. Strong..... | Boston, Mass. |
| | Herman M. Biggs..... | Albany, N. Y. |
| 1918 | Harvey Cushing | Boston, Mass. |
| 1921 | Edward R. Baldwin..... | Saranac Lake, N. Y. |

ALPHABETICAL LIST

OF THE

MEMBERS OF THE CONNECTICUT STATE MEDICAL SOCIETY,

With Date and Place of Graduation.

| | | |
|---|---------------------------------|------------------|
| Aaronson, M. S. | Univ. N. Y., '13..... | Ansonia |
| Abrams, A. E. | Albany, '81..... | Hartford |
| Adam, J. G. | Trinity, Tor., '00..... | Canaan |
| Adams, F. J. | Univ. N. Y., '95..... | Bridgeport |
| Adams, H. E. | Yale, '02..... | Hartford |
| Adams, W. W. | Bellevue, '91..... | Moosup |
| Agnew, R. R. | Yale, '08..... | Norwich |
| Alcorn, T. G. | P. & S., Boston, '97..... | Thompsonville |
| Alcott, R. W. E. | U. S. Med. Coll., '81..... | West Hartford |
| Alderman, I. S., Ph.B., Yale..... | P. & S., N. Y., '19..... | New Haven |
| Alexander, M. E. | Bellevue, '19..... | Waterbury |
| Allen, E. B., B.A., M.A., Brown '11..... | Harvard, '15..... | South Manchester |
| Allen, C. N. | Univ. Vt., '81..... | Moosup |
| Allen, H. S. | Yale, '04..... | Woodbury |
| Allen, H. W. | Med. Chir., Phila., '09..... | Ridgefield |
| Allen, L. M. | P. & S., N. Y., '80..... | South Norwalk |
| Allen, M. F. | Med. Chi., Phila., '95..... | New Haven |
| Alling, A. N., B.A., Yale, '86 | P. & S., N. Y., '91..... | New Haven |
| Allyn, L. M. | Univ. Penn., '93..... | Mystic |
| Alpert, R. H. | Yale, '13..... | New Haven |
| Alton, C. De L. | Bellevue, '75..... | Hartford |
| Anderson, A. J., M.B., C.M., Edinburgh, '91 | Edinburgh, '18..... | Litchfield |
| Anderson, H. G. | P. & S., N. Y., '89..... | Waterbury |
| Anderson, P. F. | N. Y. Homeo. Med. Col., '13.... | Waterbury |
| Apsel, A., Ph.G., Brooklyn Coll. Phar., '13 | L. I. Coll. Hosp., '18..... | Bridgeport |
| Arnold, E. H. | Yale, '04..... | New Haven |
| Arnold, H. S., B.A., Yale, '00 | Yale, '03..... | New Haven |
| Atkinson, E. | Univ. Vt., '93..... | Niantic |
| Austin, A. E., B.A., Amherst; | | |
| M.A., Amherst, '04 | Jefferson, '05..... | Sound Beach |
| Avery, J. W. | Univ. Vt., '97..... | Stamford |
| Axtelle, J. F. | L. I. Coll. Hosp., '78..... | Hartford |
| Backus, H. S. | L. I. Coll. Hosp., '03..... | Hartford |
| Bacon, L. W., B.A., Yale, '88 | Yale, '92..... | New Haven |
| Bailey, J. E. | P. & S., N. Y., '85..... | Middletown |
| Bailey, M. A. | P. & S., Balt., '93..... | Hartford |
| Bailev, N. H. | P. & S., Balt., '11..... | Hartford |
| Baker, W. I. | Hahnemann, Phila., '98..... | Naugatuck |

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| Baldwin, C. T. | Bellevue Med. Coll., '83..... | Derby |
| Baldwin, W. P., B.A., Yale, '88 | Yale, '90, N. Y. Homeo., '91.... | New Haven |
| Banks, D. T. | Fordham, '12..... | Bridgeport |
| Barber, A. E. | Berkshire, '54..... | Bethel |
| Barber, W. L. | Bellevue, '73..... | Waterbury |
| Barber, W. L., Jr., B.A., Yale, '03 | N. Y. Univ. & Bellevue, '07.... | Waterbury |
| Barihault, A. O. | Vict. Med. Coll., '89..... | New Haven |
| Barker, A. J. | Bellevue, '97..... | Torrington |
| Barker, C. | Dartmouth, '13..... | New Haven |
| Barnes, F. H. | N. Y. Homeo. Med., '96..... | Stamford |
| Barnes, G. | Univ. N. Y., '04..... | Killingly |
| Barnes, W. S., Ph.B., Yale, '95 | Yale, '97..... | New Haven |
| Barnum, C. G., B.A., Middlebury Coll., '05; M.A., Middlebury Coll., '07 | Yale, '11..... | Groton |
| Barrett, W. J. | Md. Med., '04..... | New Haven |
| Barrows, B. S., Ph.B., '83 | Univ. N. Y., '87..... | Hartford |
| Barlett, C. J., B.A., Yale, '92; M.A., Yale, '94 | Yale, '95..... | New Haven |
| Bassett, C. W. | Univ. N. Y., '82..... | Sharon |
| Batley, P. B. | Creighton, '11..... | Wethersfield |
| Beach, C. C., Ph.B., Yale, '77 | P. & S., N. Y., '82..... | Hartford |
| Beach, C. T. | Yale, '05..... | Hartford |
| Bean, W. B. | P. & S., N. Y., '95..... | Rockville |
| Bean, W. H., Ph.B., Yale, '88 | Yale, '03..... | New Haven |
| Beaudry, J. H. | McGill, '13..... | Bridgeport |
| Beck, F. G. | Yale, '03..... | New Haven |
| Beckwith, H. W. | Dartmouth Med. Coll., '02, address unknown | |
| Bell, G. N. | Yale, '92..... | Hartford |
| Benedict, F. A. | P. & S., N. Y., '87..... | Seymour |
| Bercinsky, D. | Yale, '02..... | New Haven |
| Bergin, T. E. | Yale | Cos Cob |
| Bergman, A., B.S., Stockholm, '89 | City of N. Y., '95..... | New Haven |
| Berman, H., B.A., Yale, '13..... | Yale, '15..... | Hartford |
| Bernstein, A. | Yale, '08..... | Bridgeport |
| Bevan, C. A. | Med. Chir., Phila., '87..... | West Haven |
| Bevans, T. F. | Univ. Minn., '03..... | Waterbury |
| Bickford, H. | Penn. Eclectic Med., '68..... | Hartford |
| Bill, P. W., Ph.B., Yale, '07 | P. & S., N. Y., '01..... | Bridgeport |
| Biram, J. H. | Cornell, '10..... | Hartford |
| Birdsong, J. L., B.S., Nashville, '99 | Johns Hopkins, '09..... | Hartford |
| Bishop, F. C., B.A., Yale, '92 | Yale, '95..... | New Haven |
| Bishop, L. B., B.A., Yale, '86 | Yale, '88..... | California |
| Bissell, W. B., B.A., Yale, '88 | P. & S., N. Y., '92..... | Lakeville |
| Black, J. E., Ph.B., Yale, '03 | Yale, '08..... | Shelton |
| Black, J. T. | Hahn. Med. Coll., '94..... | New London |
| Black, R. E. | P. & S., N. Y., '05..... | New London |
| Blackmar, J. S. | P. & S., N. Y., '98..... | Norwich |
| Blair, E. H. | P. & S., Balt., '06..... | Hartford |
| Blake, E. M. | Yale, '06..... | New Haven |
| Blank, E. F. | Starling, '97..... | Bridgeport |
| Blodget, H., B.A., Yale, '75 | Bellevue, '81..... | Bridgeport |
| Blumer, G., M.A., Yale, '07 | Cooper Med. Coll., '91..... | New Haven |
| Boardman, A. K. | Univ. Penn., '99..... | New Haven |
| Bodley, G. H. | Yale, '07..... | New Britain |
| Bohannon, C. G. | Univ. N. Y., '78..... | South Norwalk |

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| Bonner, R. A. | Univ. Md., '12..... | Waterbury |
| Bonoff, Z. A. | Yale, '04..... | New Haven |
| Borden, C. H. | P. & S., N. Y., '96..... | Hartford |
| Bostwick, B. E. | L. I. Hosp. Coll., '90..... | New Milford |
| Botsford, C. P. | Yale, '94..... | Hartford |
| Boucher, J. B. | P. & S., Balt., '94..... | Hartford |
| Boucher, I. J. | P. & S., Balt., '04..... | Hartford |
| Bowers, W. C. | P. & S., N. Y., '77..... | Bridgeport |
| Boyce, R. V. | Univ. Vt., '13..... | Hartford |
| Boyle, R. J. | Yale, '08..... | Hartford |
| Brackett, A. S., B.A., Yale, '92 | Jefferson, '95..... | Bristol |
| Bradeen, F. B. | Univ. Penn., '99..... | Essex |
| Bradley, M. S. | P. & S., N. Y., '92..... | Hartford |
| Bradley, T. R. | Univ. Md., '14..... | South Norwalk |
| Bradstreet, E. T., B.A., Yale, '74 | P. & S., N. Y., '77..... | Meriden |
| Brainard, C. B., Ph.B., Yale, '94 | Yale, '98..... | Hartford |
| Branon, A. W. | Jefferson, '13..... | Hartford |
| Bray, H. T. | Univ. Vt., '02..... | New Britain |
| Brayton, H. W., Ph.B., Brown, '06 | Harvard, '11..... | Hartford |
| Brennan, J. E. | Georgetown, '05..... | New Milford |
| Brennan, P. J. | Yale, '07..... | Waterbury |
| Bretzfelder, K. B. | Jefferson, '16..... | New Haven |
| Bridge, J. L., B.S., Wesleyan, '88; Ph.D., Clark, '94 | Harvard, '03..... | Thompsonville |
| Brodsky, E. S. | Univ. Zurich, Switzerland, '08.... | Westport |
| Bronson, W. T. | Univ. N. Y., '98..... | Danbury |
| Brooks, F. T., B.A., Yale, '90 | L. I. Hosp. Coll., '93..... | Greenwich |
| Brooks, M. J. | Yale, '67..... | New Canaan |
| Brophy, E. J. | Yale, '04..... | Norwich |
| Brown, C. H. | Univ. N. Y., '93..... | Waterbury |
| Brown, D. C. | Yale, '84..... | Danbury |
| Brown, H. M. | Jefferson, '13..... | Suffield |
| Brown, K. O. | Univ. Kansas, '02..... | New Haven |
| Brown, L. R., B.A., Tufts, '00 | Tufts, '07..... | Hathorne, Mass. |
| Browne, W. T., Ph.B., Yale, '78 | Harvard, '82..... | Norwich |
| Brownlee, H. F. | P. & S., N. Y., '88..... | Danbury |
| Bryon, B. A. | Bellevue, '90 | Ridgefield |
| Buel, J. L. | P. & S., N. Y., '88..... | Litchfield |
| Buffum, J. H., Ph.B., Univ. Vt., '96 | Univ. Vt., '98..... | Wallingford |
| Bull, J. N. | P. & S., N. Y., '78..... | Plainville |
| Bull, T. M. | P. & S., N. Y., '87..... | Naugatuck |
| Bullard, M. J., B.A., Cornell, '02 | Cornell, '04..... | Putnam |
| Bunce, P. D., B.A., Yale, '88 | P. & S., N. Y., '91..... | Hartford |
| Burke, W. | L. I. Hosp. Coll., '96..... | Greenwich |
| Burke, W. P. J. | Yale, '90..... | New Haven |
| Burlingame, C. C. | Hahn., Chic., '08..... | South Manchester |
| Burnell, F. E. | L. I. Hosp. Coll., '94..... | South Norwalk |
| Burnham, J. L., B.A., Yale, '96 | Yale, '99..... | Portland |
| Burns, B. J., B.A., Holy Cross..... | Georgetown, '18..... | Bridgeport |
| Burr, N. A. | Yale, '01..... | South Manchester |
| Burroughs, G. McC. | Balt. Med. Coll., '00..... | Danielson |
| Bush, C. E. | Yale, '94..... | Cromwell |
| Butler, W. E. | Hahneemann, Phila., '97..... | New Haven |
| Butler, W. J. | L. I. Hosp. Coll., '95..... | New Haven |

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| Calif, J. F., B.A., Wesleyan, '77; | | |
| M.A., Wesleyan, '80 | Yale, '80 | Middletown |
| Callahan, J. W. | P. & S., Balt., '11 | Norwich |
| Callender, E. F. | Yale, '12 | Waterbury |
| Calvin, C. V. | Harvard, '16 | Bridgeport |
| Camp, C. W. | Univ. N. Y., '74 | Canaan |
| Campbell, A. J. | P. & S., Balt., '85 | Middletown |
| Campbell, H. B. | Univ. Penn., '09 | Norwich |
| Campbell, S. S. S. | Univ. Vt., '02 | Middletown |
| Cantarow, D. | Tufts, '11 | Hartford |
| Carelli, G. F. | Yale, '11 | New Haven |
| Carlin, C. H. | Univ. Mich., '06 | Torrington |
| Carmalt, W. H., M.A. (Hon.), Yale, '81 | P. & S., N. Y., '61 | New Haven |
| Carroll, C. H. | Yale, '12 | New Haven |
| Carroll, F. P., B.S., Trinity, '10 | Johns Hopkins, '14 | Bridgeport |
| Carroll, I. F. | Balt. Med., '06 | Stamford |
| Carroll, J. J. | Dartmouth, '97 | Naugatuck |
| Carter, E. B., Ph.B., Yale, '07 | Johns Hopkins, '11 | Hartford |
| Carver, J. P. | Albany, '96 | Simsbury |
| Casey, W. B. | Univ. Med., '06 | Norwich |
| Cassidy, L. T., Georgetown, '04 | Georgetown, '08 | Norwich |
| Cassidy, P. | Univ. Vt., '65 | Norwich |
| Castle, F. E. | Yale, '70 | Waterbury |
| Chaffee, J. S., Ph.B., Yale, '94 | Univ. Penn., '97 | Sharon |
| Chandler, H. M. | Albany, '03 | Middletown |
| Chandler, J. A. S.-C. | Univ. Buffalo, '14 | Middletown |
| Chapin, H. B. | Georgetown, '08 | Torrington |
| Chase, A. A. | Harvard, '01 | Plainfield |
| Chedel, C. B., B.A., Dartmouth, '03 | Dartmouth, '06 | Portland |
| Cheney, B. A., B.A., Yale, '88 | Yale, '90 | New Haven |
| Cheney, G. P. | Md. Med. School, '13 | New London |
| Cheney, M. L. | Univ. Vt., '17 | Bridgeport |
| Chester, T. W., B.A., Rutgers, '92; | | |
| M.A., '95 | P. & S., N. Y., '95 | Hartford |
| Chillingworth, F. P. | Yale, '07 | New Orleans, La. |
| Chipman, E. C., A.B., Alfred Univ., '87 | P. & S., N. Y., '01 | New London |
| Churchman, J. W., B.A., Princeton, '98; | | |
| M.A., Princeton, '01; M.A. (Hon.), | | |
| Yale, '15 | Johns Hopkins, '02 | New York City |
| Claffey, M. F. | Univ. Vt., '14 | Naugatuck |
| Clark, R. M. | Univ. Penn., '01 | New Britain |
| Clarke, H. M. | Univ. Toronto, '09 | Bridgeport |
| Clarke, J. A. | Bellevue, '97 | Greenwich |
| Clarke, R. DeB., B.A., Univ. N. Y., '04 | Johns Hopkins, '08 | West Haven |
| Clifton, H. C. | Univ. Penn., '01 | Hartford |
| Cloonan, J. J. | P. & S., Balt., '07 | Stamford |
| Cobb, A. E. | Yale, '98 | Falls Village |
| Coburn, J. M. | Boston Univ., '74 | Norwalk |
| Cochran, L. B. | Univ. Penn., '93 | Hartford |
| Cogswell, E. S. | Harvard, '12 | Hartford |
| Cogswell, W. B. | Bellevue, '81 | Stratford |
| Cohane, J. J. | Yale, '98 | New Haven |
| Cohane, T. F. | Yale, '97 | New Haven |
| Cohen, J., B.A., Coll. City of N. Y., '94 | N. Y. Med. Coll., '09 | Bridgeport |
| Coleburn, A. B. | P. & S., N. Y., '90 | Norwalk |

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| Collins, W. F. | Yale, '04..... | New Haven |
| Comfort, C. W., Jr., B.A., Yale, '07 | Yale, '11..... | New Haven |
| Comstock, F. W. | Tufts Med., '13..... | New Haven |
| Conklin, J. H. | Univ. Vt., '99..... | Hartford |
| Conte, H. A. | L. I. Hosp. Coll., '12..... | New Haven |
| Converse, G. F. | Yale, '87..... | New Haven |
| Coogan, J. A. | Bellevue, '76..... | Windsor Locks |
| Cook, A. G. | P. & S., N. Y., '87..... | Hartford |
| Cooke, J. A. | Yale, '97..... | Meriden |
| Cooley, C. M. | Yale, '08..... | New Britain |
| Cooley, M. L. | Buffalo Univ., '86..... | Waterbury |
| Cooney, W. J. | Yale, '02..... | New Haven |
| Cooper, L. E., Ph.B., Yale, '84 | Yale, '86..... | Ansonia |
| Coops, F. H., B.A., Dalhousie, '88 | P. & S., Balt., '96..... | Bridgeport |
| Costanzo, J. J. | Univ. Ill..... | Stamford |
| Costello, H. N., B.A., Yale, '06 | Johns Hopkins, '10..... | Hartford |
| Cowan, I. | Wom. Med. Coll., N. Y., '92.... | Waterbury |
| Cowen, M. E. | Univ. Vt., '07..... | Green's Farms |
| Cowell, G. B. | P. & S., N. Y., '88..... | Bridgeport |
| Cox, R. B. | McGill, '02..... | Collinsville |
| Coyle, A. E. | Wom. Med. Coll., Pa., '12.... | Bridgeport |
| Coyle, B. J., B.A., St. Bonaventure..... | Georgetown, '18..... | Bridgeport |
| Coyle, W. J. | Buffalo Univ., '85..... | Windsor Locks |
| Cragin, D. B. | Harvard, '02..... | Hartford |
| Craig, C. F. | Yale, 94..... | U. S. Army |
| Cram, G. E., Ph.B., Yale, '97 | P. & S., N. Y., '01..... | Norwalk |
| Crane, A. A., B.A., Yale, '85 | Yale, '87..... | Waterbury |
| Crane, R. W. | Yale, '05..... | Stamford |
| Cranz, A. H. | Tufts, '18..... | Middletown |
| Creadick, A. N., B.A., Univ. Penn. | Univ. Penn., '08..... | New Haven |
| Cronin, W. D. | P. & S., N. Y., '00..... | New London |
| Crossfield, F. S. | Bellevue, '78..... | Hartford |
| Crowe, W. H. | P. & S., N. Y., '95..... | New Haven |
| Crowley, W. H. | Buffalo, '08..... | Hartford |
| Cudworth, C. D. | Hahnemann, Chic., '04..... | Winsted |
| Curley, W. H. | Cornell, '08..... | Bridgeport |
| Curran, P. J. | P. & S., N. Y., '01..... | Bridgeport |
| Daley, W. P. | Georgetown, '17..... | Hartford |
| Daly, C. W. | P. & S., Balt., '10..... | Hartford |
| Dart, F. H. | P. & S., N. Y., '84..... | Niantic |
| Davis, C. C. | Yale, '07..... | Essex |
| Davis, E. W., B.A., Yale, '80 | Yale, '92..... | Seymour |
| Dawson, J. W. | Toledo, '94..... | Stafford Springs |
| Day, F. L., B.A., Bates, '90 | Bellevue, '93..... | Bridgeport |
| Deane, H. A. | Dartmouth, '68..... | Broad Brook |
| DeBonis, D. A., B.A., Victor Immanuel College, Naples, '84 | Univ. Naples, '90..... | Hartford |
| DeForest, L. S., B.A., Yale, '79; M.A., Yale, '91 | Univ. Jena, '85..... | New Haven |
| DeLuca, H. R. | George Washington, '16..... | Bridgeport |
| DeLuise, I. | Naples Univ., '03..... | Waterbury |
| Deming, C. D., B.A., Yale, '07 | Johns Hopkins, '10..... | Hartford |
| Deming, C. K. | P. & S., N. Y., '17..... | New Haven |

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| Deming, D. | Waterbury |
| Deming, E. A., Ph.B., Yale, '04 | Johns Hopkins, '08.....Hartford |
| Deming, N. L. | P. & S., N. Y., '93.....Litchfield |
| Deming, W. C. | P. & S., N. Y., '84.....Georgetown |
| Denne, T. H. | Univ. Vt., '05.....West Hartford |
| Dennis, F. S., B.A., Yale, '72 | Bellevue, '74.....Norfolk |
| Devitt, E. K. | Univ. Med. Coll., '07.....Lyme |
| DeWolfe, D. C. | Univ. Vt., '86.....Bridgeport |
| Dichter, C. L. | Md. Med. Coll., '05.....Stamford |
| Dickerman, W. E., B.A., Amherst, '90 | Yale, '93.....Hartford |
| Dickinson, F. McL., Ph.B., Yale, '00 | P. & S., N. Y., '05.....Rockville |
| Diefendorf, A. R., B.A., Yale, '94 | Yale, '96.....New Haven |
| Dillon, J. H. | Yale, '04.....Waterbury |
| Dixon, H. C. | Bowdoin, '17.....Danielson |
| Donahue, James J. | P. & S., Balt., '96.....Norwich |
| Donahue, J. J. | Balt. Med., '09.....Montville |
| Donaldson, W. H. | Univ. N. Y., '81.....Fairfield |
| Douglass, E. L. | L. I. Coll. Hosp., '16.....Groton |
| Douglass, E. P. | Univ. N. Y., '89.....Groton |
| Dowd, M. J. | Balt. Med. Coll., '01.....Thompsonville |
| Dowling, J. F. | L. I. Hosp. Coll., '90.....Hartford |
| Downing, F. | Balt. Med. Coll., '08.....Moosup |
| Driscoll, W. T. | P. & S., Balt., '12.....Norwich |
| Dryfus, M. L. | Yale, '12.....New Haven |
| Duesing, H. | Univ. Wurtzburg, '92.....Bridgeport |
| Dunham, E. C., B.A., Bryn Mawr..... | Johns Hopkins, '18.....New Haven |
| Dunham, M. Van B. | Harvard, '67.....Greenfield Hill |
| Dunn, F. M. | Balt. Med. Coll., '08.....New London |
| Dunn, G. W. | Balt. Med. Coll., '09.....New Britain |
| Dunning, Z. F. | Albany, '88.....Devon |
| Dwyer, P. J., B.A., Fordham, '04 | Univ. N. Y., '97.....Waterbury |
| Dwyer, R. J. | Jefferson, '08.....Hartford |
| Dwyer, W., B.S., Trinity, '09 | Johns Hopkins, '13.....Hartford |
| Dye, J. S., B.A., Vanderbilt, '00 | P. & S., N. Y., '15.....Waterbury |
| Eaton, H. D. | P. & S., N. Y., '11.....Ridgefield |
| Egan, J. J. | Univ. Md., '12.....Waterbury |
| Eggleston, J. D. | P. & S., N. Y., '79.....Meriden |
| Eliot, G., B.A., Yale, '77; Yale, M.A., '82.. | P. & S., N. Y., '80.....New Haven |
| Elliott, C. H., B.Sc., Buckland, '02; | |
| M.Sc., Buckland, '04 | Med. Chi., '05.....Hartford |
| Ellis, T. L., B.A., Yale, '94 | Yale, '96.....Bridgeport |
| Elmer, E. O. | P. & S., Balt., '94.....Hartford |
| Emmett, F. A. | Yale, '02.....Hartford |
| Enders, T. B., B.A., Yale, '88 | P. & S., N. Y., '91.....Hartford |
| Engelke, C. | P. & S., N. Y., '02.....Waterbury |
| English, C. F., B.S., St. Louis, '12 | St. Louis, '12.....New Hartford |
| English, R. M. | Yale, '98.....Danbury |
| Esposito, J. V. | Jefferson, '12.....New Haven |
| Farrell, J. E. | Univ. N. Y., '03.....Waterbury |
| Fauver, E. | P. & S., Columbia, '09.....Middletown |
| Fay, W. J., B.A., '10..... | Harvard, '14.....Hartford |
| Felt, P. R., B.A., Dartmouth | Dartmouth, '10.....Middletown |
| Felty, J. W., M.A., Emporia, Kan., '97 | Jefferson, '84.....Hartford |
| Fenn, A. H. | P. & S., Balt., '86.....Meriden |

| | | |
|---|---|-----------------|
| Ferguson, R. J. | Hahn, Phila., '89..... | New Haven |
| Ferrin, C. F., B.A., Univ. Vt., '91 | P. & S., N. Y., '95..... | New London |
| Ferris, H. B., B.A., Yale, '87 | Yale, '90..... | New Haven |
| Field, A. | L. I. Hosp. Coll., '67..... | East Hampton |
| Finch, G. T., B.A., Hohart, '75; M.A., Hohart, '78 | Bellevue, '77..... | Thompsonville |
| Finch, S. E. | Cornell, '04..... | Sound Beach |
| Finklestone, B. B. | P. & S., Balt., '10..... | Bridgeport |
| Finn, E. J. | Yale, '10..... | Shelton |
| Finnegan, J. H. | Md. Med. Coll., '12..... | Bridgeport |
| Fischer, A. | N. Y. Univ. & Bell. Hosp., '09.... | Hartford |
| Fischer, W. J. H. | Yale, '11..... | Milford |
| Fisher, J. W. | Wom. Med. Coll., Pa., '93.... | Middletown |
| Fisher, W. E. | Univ. Penn., '76..... | Portland |
| Fiske, I. P. | Univ. N. Y., '75..... | Rockville |
| Fitch, F. T. | Yale, '04..... | East Hampton |
| Fitzgerald, E. | P. & S., Balt., '84..... | Bridgeport |
| Flaherty, C. V. | Yale, '10..... | Hartford |
| Flaherty, J. E. | Georgetown, '08..... | Rockville |
| Fleck, H. W. | Jefferson, '96..... | Bridgeport |
| Flynn, C. T. | Yale, '11..... | New York City |
| Flynn, D. A. | Yale, '05..... | New Haven |
| Flynn, J. F. | P. & S., Balt., '12..... | Bridgeport |
| Flynn, J. H. J. | Yale, '95..... | New Haven |
| Foley, F. E., B.A., Holy Cross, '08 | Yale, '14..... | New Haven |
| Fontaine, A. | Laval Univ., '92..... | Plainfield |
| Foote, C. J., B.A., Yale, '83; M.A., Yale, '90 | Harvard, '87..... | New Haven |
| Ford, A. P. | Wom. Med. Coll., Pa., '04..... | New Haven |
| Ford, G. S. | Bellevue, '93..... | Bridgeport |
| Formichelli, G. | Univ. Italy, '98..... | Bridgeport |
| Foster, D., M.A., Univ. Kan. | Yale, '09..... | Stamford |
| Foster, W. W. | Harvard, '82, Bureau of Pensions, Washington, D. C. | |
| Fox, D. A. | N. Y. Univ. & Bell. Hosp., '02.... | Clinton |
| Fox, E. G. | Univ. N. Y., '83..... | Wethersfield |
| Fox, M. E. | L. I. Hosp. Coll., '03..... | Uncasville |
| Freeman, A. C. | Univ. Vt., '13..... | Norwich |
| French, H. T. | P. & S., N. Y., '91..... | Deep River |
| Fromen, E. T. | Milwaukee Med. Coll., '97.... | New Britain |
| Frost, C. W. S. | P. & S., N. Y., '80..... | Waterbury |
| Furniss, H. W. | Howard Univ., '91..... | Hartford |
| Gade, C. J. | Yale, '10..... | Bridgeport |
| Gadle, P. F. | Univ. Vt. | Norwich |
| Gailey, J. J. | Bowdoin, '98..... | Waterbury |
| Gallivan, T. H. | Yale, '09..... | Hartford |
| Gancher, J. | L. I. Coll. Hosp., '06..... | Waterbury |
| Gandy, R. R. | Univ. Penn., '99..... | Stamford |
| Ganey, J. M. | P. & S., N. Y., '04..... | New London |
| Gardner, C. W. | Univ. Md., '01..... | Bridgeport |
| Gardner, J. L. | Univ. Vt., '81..... | Central Village |
| Garlick, G. B. | Yale, '12..... | Bridgeport |
| Garlick, S. M., B.A., Dart., '74 | Harvard, '77..... | Bridgeport |
| Gates, A. B. | L. I. Coll. Hosp., '12..... | Greenwich |
| Gaylord, C. W., B.A., Yale, '11 | Yale, '15..... | Branford |

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| Geraci, L. A., Ph.B., Yale, '13 | P. & S., N. Y., '17 | New Haven |
| Gessner, F. E. | Yale, '12 | care Surg. Gen., U. S. Army |
| Gibbs, J. A. | P. & S., Chicago, '02 | Suffield |
| Gilday, J. L. | Med. Coll. Cin., '13 | Bridgeport |
| Gildersleeve, C. C. | Yale, '96 | Norwich |
| Gill, M. H. | Yale, '96 | Hartford |
| Gillin, C. A. | Univ. N. Y., '83 | New Britain |
| Gilmore, J. L. | Yale, '04 | West Haven |
| Girard, C. H. | Victoria, '96 | Willimantic |
| Girouard, J. A. | Balt. Med. Coll., '99 | Willimantic |
| Gladwin, E. H. | Wom. Med. Coll., N. Y., '72 | Hartford |
| Godfrey, C. C., Ph.B., Yale, '77 | Dartmouth, '84 | Bridgeport |
| Godfrey, W. T. | Cornell, '07 | Stamford |
| Gold, J. D., Ph.B., Yale, '88 | P. & S., N. Y., '91 | Bridgeport |
| Goldberg, S. J. | Yale, '07 | New Haven |
| Goldman, G. | Yale, '10 | New Haven |
| Gompertz, L. M. | Yale, '96 | New Haven |
| Good, W. M. | Yale, '09 | Waterbury |
| Goodenough, E. W., B.A., Yale, '87 | Yale, '93 | Waterbury |
| Goodrich, C. A., B.S., Mass. Agr. Coll., '93 | P. & S., N. Y., '96 | Hartford |
| Goodrich, W. A. | Med. Cbi., Phila., '02 | Waterbury |
| Goodwin, R. S., Ph.B., Yale, '90 | P. & S., N. Y., '93 | Thomaston |
| Goodyear, R. B. | Yale, '68 | North Haven |
| Gordon, R. K. | P. & S., N. Y., '19 | New Haven |
| Gordon, W. F. | L. I. Hosp. Coll., '96 | Danbury |
| Gorham, F. | Yale, '76 | Lyons Plains |
| Gosselin, G. A., B.A., Tural, '11 | Univ., '15 | Waterbury |
| Grannis, I. | Yale, '96 | Old Saybrook |
| Graves, C. B., B.A., Yale, '82 | Harvard, '86 | New London |
| Graves, F. G. | Yale, '92 | Waterbury |
| Gray, W. H. | P. & S., N. Y., '89 | Mystic |
| Green, J. H. | N. Y. Univ. & Bell. Hosp., '13 | Waterbury |
| Greenstein, M. J. | Univ. South, '06 | Bridgeport |
| Gregory, J. G., B.A., Yale, '65 | P. & S., N. Y., '68 | Norwalk |
| Griffen, D. P. | Jefferson, '14 | Bridgeport |
| Griggs, J. B. | Yale, '97 | Hartford |
| Griswold, A. H., B.A., Harvard, '02 | Johns Hopkins, '06 | Farmington |
| Griswold, F. P. | P. & S., N. Y., '76 | Meriden |
| Griswold, J. E. | Univ. N. Y., '79 | Rocky Hill |
| Griswold, R. M. | Univ. N. Y., '75 | Kensington |
| Griswold, W. L., Ph.B., Yale, '81 | P. & S., N. Y., '85 | Greenwich |
| Groark, O. J. | Med. Cbi., Phila., '16 | Bridgeport |
| Grodzinsky, H. W. | Yale, '17 | New Haven |
| Guild, F. E. | L. I. Hosp. Coll., '85 | Windham |
| Hale, F., B.S., Amherst, '05 | P. & S., N. Y., '09 | Bridgeport |
| Hall, C. C., B.A., Bowdoin, '06 | Johns Hopkins, '10 | Hartford |
| Hallock, F. K., B.A., Wesleyan, '82 | | |
| M.A., Wesleyan, '85 | P. & S., N. Y., '85 | Cromwell |
| Hamant, I. L. | L. I. Hosp. Coll., '90 | Norfolk |
| Hamilton, C. A. | Univ. Vt., '86 | Waterbury |
| Hammond, S. M. | Yale, '96 | Hartford |
| Hancbett, H. B. | Jefferson, '05 | Torrington |
| Hanley, J. P. | Cornell, '06 | Stafford Springs |

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| Harrington, A. T., B.A., Yale, '94 | Harvard, '10 | Hartford |
| Harrington, J. L. | Jefferson, '03 | New London |
| Harrison, J. F. | Jefferson, '03 | Stamford |
| Hart, B. I., B.A., N. Y. Univ., '00 | P. & S., N. Y., '04 | Bridgeport |
| Harten, J. A. | Balt. Med., '10 | New Haven |
| Hartnett, J. D. | Balt. Med., '11 | Winsted |
| Hartshorn, W. E., Ph.B., Colo. Coll., '95 | Univ. Minn., '98 | New Haven |
| Harvey, C. C., B.S., Wesleyan, '12 | Cornell, '16 | Middletown |
| Harvey, E. R. | Balt. Med., '02 | Seymour |
| Hatheway, C. M. | Bellevue, '03 | Hartford |
| Havey, L. A. | Univ. Vt., '10 | Bridgeport |
| Haviland, C. F. | Univ. Syracuse, '96 | Middletown |
| Hawkes, W. W., B.A., Yale, '79 | Yale, '81 | New Haven |
| Hawley, G. W., Ph.B., Yale, '96 | Cornell, '99 | Bridgeport |
| Hayes, J. F. | Univ. N. Y., '79 | Waterbury |
| Haylett, H. B. | Univ. Vt., '07 | East Hartford |
| Hazen, R., B.A., Univ. Vt., '96 | Univ. Vt., '98 | Tbomaston |
| Heady, C. K. | Jefferson, '13 | Milford |
| Healey, T. F. | L. I. Med. Coll., '08 | Stamford |
| Healy, T. F. | Niagara, '93 | Bridgeport |
| Henderson, A. C., B.S., Amherst, '99 | P. & S., N. Y., '03 | Stamford |
| Hendricks, A. L. | Yale, '07 | New Haven |
| Hendry, W. E. | Albany, '89 | Willimantic |
| Henkle, E. A. | Cornell, '99 | New London |
| Henze, C. W. | Yale, '00 | New Haven |
| Hepburn, T. N., B.A., Randolph Macon Coll., Va., '00; M.A., '01 | Johns Hopkins, '05 | Hartford |
| Herbert, A. C. | Univ. Va., '03 | New Haven |
| Herr, E. A., B.A., Dartmouth, '06 | Univ. Vt., '09 | Waterbury |
| Hersey, H. W., B.S., Harvard | Harvard, '08 | New Haven |
| Hershman, A. A. | Yale, '08 | New Haven |
| Hertzberg, G. R. | Dartmouth, '99 | Stamford |
| Hessler, H. P. | Yale, '03 | New Haven |
| Heublein, A. C. | P. & S., N. Y., '02 | Hartford |
| Hewitt, A. F. | Univ. Syracuse, '14 | Stamford |
| Heyer, H. H. | Univ. N. Y., '87 | New London |
| Hibbard, N., B.A., Brown, '78 | Harvard, '82 | Danielson |
| Higgins, G. S. | Yale, '01 | North Haven |
| Higgins, H. E. | Univ. N. Y., '96 | Norwich |
| Higgins, J. A. | P. & S., Balt., '07 | Hartford |
| Higgins, W. L. | Univ. N. Y., '90 | South Coventry |
| Hill, W. M. | Univ. Va., '97 | Noank |
| Hills, L. H. | Wom. Med. Coll., '96 | Willimantic |
| Hipkiss, G. | Hahnemann, Phil., '86 | Cambridge, Mass. |
| Hippolitus, P. D. | Yale, '12 | Bridgeport |
| Hirata, I. | Yale, '12 | New Haven |
| Hitchcock, W., Ph.B., Yale, '80 | P. & S., N. Y., '83 | Norwalk |
| Hodgson, T. C., M.B., Toronto, '94 | Trinity Med. Coll., '94 | East Berlin |
| Hoegen, J. A. | Homeo. Med. Coll., N. Y., '15 | Bronx, N. Y. |
| Hogan, W. J. | Yale, '98 | Torrington |
| Holbrook, C. W., M.A., Amherst, '93 | Yale, '96 | East Haven |
| Holmes, LeV. | Boston Univ. Homeo. Sc. of Med., '04 | So. Manchester |
| Horn, M. I., Med. Coll. N. Y., '12 | N. Y. Homeo. Med. Coll., '13 | Bridgeport |
| Horwitz, M. T. | Md. Med. Coll., '13 | Bridgeport |
| House, A. L. | Yale, '95 | Stamford |
| Howard, A. W. | Univ. N. Y., '90 | Wethersfield |

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| Howard, J. H. | Georgetown, '18..... | Bridgeport |
| Howd, S. J. | Jefferson, '83..... | Winsted |
| Howland, DeR. | P. & S., N. Y., '06..... | Stratford |
| Howland, E. J. | Univ. Vt., '11..... | Colchester |
| Hoyt, H. E., B.A., Univ. Kansas | Albany, '94..... | Noroton |
| Hulbert, W. S. | Univ. N. Y., '80..... | Winsted |
| Huntington, S. H. | Yale, '76..... | Norwalk |
| Hurlbut, A. M. | P. & S., N. Y., '79..... | Stamford |
| Hurwitz, H. M. | Yale, '12..... | Hartford |
| Hutchinson, J. E., B.A., Ohio State Univ., '09 | Johns Hopkins, '05..... | Hartford |
| Hyde, C. E. | Yale, '10..... | Bridgeport |
| Hyde, F. C. | Univ. Mich., '00..... | Greenwich |
| Hyde, H. B. | Univ. Mich., '00..... | Greenwich |
| Hynes, F. H. | Tufts, '13..... | New Haven |
| Hynes, T. V. | Yale, '00..... | New Haven |

Ingalls, P. H., B.A., Bowdoin, '77;

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|-------------------------|--------------------------|-------------|
| M.A., Bowdoin, '85 | P. & S., N. Y., '80..... | Hartford |
| Irving, S. W. | Yale, '91..... | New Britain |
| Ives, E. B. | Yale, '03..... | Bridgeport |
| Ives, J. W. | Yale, '00..... | Millford |

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| Jackowitz, G. | Boston Univ. Med. Coll., '07... | New Haven |
| Jackson, A. J. | P. & S., N. Y., '15..... | Waterbury |
| Jackson, C. W. | Univ., N. Y., '87..... | Watertown |
| James, G. R. | Yale, '10..... | New Haven |
| James, H. H. | Howard Univ., '12..... | Bridgeport |
| Jarvis, H. G., B.A., Yale, '06 | Johns Hopkins, '10..... | Hartford |
| Jenkins, C. A. | Balt. Med. Coll., '11..... | Willimantic |
| Jennings, F. B., B.A., Yale, '10..... | P. & S., N. Y., '12..... | Bristol |
| Jennings, G. H. | L. I. Hosp. Coll., '75..... | Jewett City |
| Johnson, E. H. | Univ. Vt., '88..... | Naugatuck |
| Johnson, E. H. | Univ. Md., '00..... | Waterbury |
| Johnson, E. M. | Yale, '14..... | New Haven |
| Johnson, J. M. | L. I. Hosp. Coll., '95..... | Bridgeport |
| Joslin, G. H. | Univ. Vt., '87..... | Mt. Carmel |
| Judson, W. H. | Jefferson, '78..... | Danielson |

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| Kane, J. H. | Md. Med. Coll., '04..... | Thomaston |
| Kane, T. F. | Bellevue, '87..... | Hartford |
| Keating, H. F. | Yale, '08..... | New Haven |
| Keating, W. P. S. | Jefferson, '99..... | Willimantic |
| Keeler, C. B. | Hahn, Chicago, '88..... | New Canaan |
| Keeler, M. G. | N. Y. Homeo., '16..... | Springdale |
| Keith, A. R., B.A., Colby, '97 | Harvard, '03..... | Hartford |
| Kellogg, H. K. W., B.S., Amherst, '89 | P. & S., N. Y., '03..... | Norwalk |
| Kelly, C. C., B.S., Davidson, '09 | Johns Hopkins, '14..... | Hartford |
| Kelsey, E. R. | Univ. Md., '01..... | Winsted |
| Kendall, J. C., B.A., Yale, '70 | P. & S., N. Y., '75..... | Norfolk |
| Keniston, J. M. | Harvard, '71..... | Portland, Me. |
| Kennedy, P. B. | Bellevue, N. Y., '95..... | Derby |
| Kennedy, W. C. | Georgetown, '10..... | Torrington |
| Kent, J. B. | Harvard, '60..... | Putnam |
| Kibbe, S. V., B.A., Harvard, '07..... | Harvard, '15..... | West Hartford |
| Kilbourn, C. J. | Univ. Vt., '14..... | Collinsville |
| Kilbourn, C. L. | Yale, '97..... | New Haven |

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| Kilbourn, J. A. | P. & S., Balt., '97..... | Hartford |
| Kilbourn, J. B. | P. & S., Balt., '11..... | Hartford |
| Kilmartin, T. J. | Univ. N. Y., '95..... | Waterbury |
| Kingman, E. L. | Yale, '94..... | Newtown |
| Kingman, J. H., B.A., Yale, '82 | P. & S., N. Y., '85..... | Middletown |
| Kingsbury, C. H. | Univ. Vt., '99..... | Danielson |
| Kingsbury, I. W., B.A., Harvard, '96 | P. & S., N. Y., '03..... | Hartford |
| Kirby, F. A. | Columbian Univ., Wash., D. C., '95.. | New Haven |
| Kirschbaum, E. H. | Yale, '12..... | Waterbury |
| Klein, J. M. | Univ. Vt., '09..... | New Britain |
| Kleiner, I. | Yale, '08..... | New Haven |
| Kleiner, S. B., Ph.B., Yale, '11 | Yale, '15..... | New Haven |
| Knapp, C. W. | P. & S., N. Y., '12..... | Greenwich |
| Knight, W. W. | Univ. N. Y., '76..... | Hartford |
| Knowlton, D. J., B.A., Harvard | Harvard, '12..... | Greenwich |
| Kowalewski, V. A., B.A., Yale, '99 | Yale, '02..... | West Haven |
| Labovitz, N., Ph.B., Yale | P. & S., N. Y., '19..... | New Haven |
| La Field, W. A. | N. Y. Homeo., '05..... | Bridgeport |
| Lamarche, G. T. | Victoria, '87..... | Putnam |
| Lambert, H. B. | Jefferson, '09..... | Bridgeport |
| Lampson, E. R., B.A., Trinity, '91 | P. & S., N. Y., '96..... | Hartford |
| LaMoure, C. TenE. | Albany, '94..... | Mansfield Depot |
| Lamy, E. D. | N. Y. Homeo., '12..... | Stamford |
| Landry, A. B. | Jefferson, '09..... | Hartford |
| Lane, J. E., B.A., Yale, '94; M.A., Yale, '97 | Yale, '03..... | New Haven |
| Lang, W. P. | Hahn, Phila., '01..... | New Haven |
| LaPierre, A. J. | Univ. Vt., '10..... | Norwich |
| LaPierre, L. F. | Yale, '01..... | Norwich |
| La Pointe, J. W. H. | Laval Univ., Montreal, '92..... | Meriden |
| Lawless, R. F. | Yale, '07..... | Stamford |
| Lawlor, M. J., Holy Cross, '02 | P. & S., N. Y., '06..... | Waterbury |
| Lawson, G. N., B.A., Yale, '90 | Yale, '92..... | Middle Haddam |
| Lawson, S. J. | Univ. Va., '05..... | New London |
| Lawton, F. L., Ph.B., Yale, '90 | Yale, '93..... | Hartford |
| Lawton, R. J. | Md. Med., '08..... | Terryville |
| Lay, W. S. | Yale, '01..... | Hamden |
| Leak, R. L. | Albany, '98..... | Middletown |
| Lear, M. | Yale, '11..... | New Haven |
| Lee, F. H. | Albany, '88..... | Canaan |
| Lee, H. M. | Columbia, '98..... | New London |
| Leichner, W. | Balt. Med. Coll., '10..... | Hartford |
| Lemmer, G. E. | Bellevue, '85..... | Danbury |
| Lena, H. F., B.A., Dartmouth, '12 | Johns Hopkins, '16..... | New London |
| Leonard, G. A. | | Waterbury |
| Leverly, C. J. | N. Y. Univ. & Bell., '01..... | Bridgeport |
| Levy, D. F., Ph.B., Yale, '15 | Yale, '19..... | New Haven |
| Levy, L. H., Ph.B., Yale, '04; M.S., Yale, '06 | Yale, '11..... | New Haven |
| Lewis, G. F., B.A., Trinity, '77 | Yale, '84..... | Stratford |
| Licht, W. H., B.S., Trinity, '07 | Johns Hopkins, '11..... | Waterbury |
| Linde, J. I. | Yale, '08..... | New Haven |
| Lindsley, C. P., Ph.B., Yale, '75 | Yale, '78..... | New Haven |
| Little, H. C. | Yale, '10..... | Willimantic |
| Locke, H. L. F. | Tufts, '12..... | Hartford |
| Lockhart, R. A. | Yale, '91..... | Bridgeport |

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| Lockwood, H. DeF. | Yale, '01..... | Meriden |
| Loewe, L. J., M.D.V., Harvard, '98 | Tufts, '01..... | Middletown |
| Loomis, F. N., B.A., Yale, '81 | Yale, '83..... | Derby |
| Lord, S. A. | Harvard, '94..... | Concord, Mass. |
| Loveland, E. K. | Yale, '97..... | Watertown |
| Loveland, J. E., B.A., Wesleyan, '89 | Harvard, '92..... | Middletown |
| Luby, J. F., Ph.B., Yale, '76 | P. & S., N. Y., '78..... | New Haven |
| Ludington, N. A. | Yale, '01..... | New Haven |
| Luther, C. V. | Wom. Med. Coll., Pa., '85.... | Old Saybrook |
| Lyman, D. R. | Univ. Va., '99..... | Wallingford |
| Lynch, E. J. | Univ. Penn., '09..... | Shelton |
| Lynch, J. C. | Univ. N. Y., '86..... | Bridgeport |
| Lynch, J. F. | P. & S., Balt., '13..... | Hartford |
| Lynch, R. J. | Bellevue, '97..... | Bridgeport |
| MacLean, D. R. | Balt. Med. Coll., '01..... | Stamford |
| MacNish, J. F., B.A., Bates | Yale, '17..... | New Haven |
| Madden, L. I., B.A., Clark, '05 | Harvard, '10..... | Hartford |
| Maguire, E. O'R. | P. & S., N. Y., '98..... | Derby |
| Maher, J. S., Ph.B., Yale, '92 | Yale, '96..... | New Haven |
| Maher, S. J. | Yale, '87..... | New Haven |
| Mailhouse, M., Ph.B., Yale, '76 | Yale, '78..... | New Haven |
| Maine, T. P. | Med. Chi., '12..... | North Stonington |
| Maislen, S. | Bellevue, '14..... | Hartford |
| Maitland, D. L. | Univ. Penn., '95..... | Middletown |
| Maloney, D. J. | Univ. N. Y., '96..... | Waterbury |
| Maloney, M. W. | Jeff. Med. Coll., Phila., '97.... | New Britain |
| Mann, F. J., Ph.B., Yale, '90 | Univ. Buffalo, '93..... | New Britain |
| Marantz, B. C. | Maryland Med., '12..... | New Haven |
| Marcy, R. A. | N. Y. Univ. Med. Coll., '82..... | Litchfield |
| Mariani, N. | Univ. Naples, '93..... | New Haven |
| Marsh, A. D. | Yale, '08..... | Hampton |
| Marsh, A. W. | Univ. Vt., '82..... | New Haven |
| Martelle, H. A., B.A., Bowdoin, '01 | Johns Hopkins, '05..... | Hartford |
| Mason, L. I. | P. & S., N. Y., '91..... | Willimantic |
| Massa, A. F., B.A., Yale | Yale, '18..... | New Haven |
| May, G. W. | Milwaukee Med. Coll., '95, So. Manchester | |
| Mayberry, F. H. | Univ. Vt., '85..... | East Hartford |
| Maynard, H. H., B.A., Amherst, '11 | Yale, '16..... | New Haven |
| McCarthy, D. J. | P. & S., Balt., '06..... | Bridgeport |
| McClellan, W. E. | Toronto, '04..... | Hartford |
| McCook, J. B., B.S., Trinity, '90 | P. & S., N. Y., '94..... | Hartford |
| McDermott, T. S. | Yale, '98..... | New Haven |
| McDonald, A. F. | P. & S., N. Y., '05..... | Waterbury |
| McDonald, W., Jr., Ph.B., Brown | P. & S., N. Y., '99..... | New Haven |
| McDonnell, R. A., B.A., Yale, '90 | Yale, '92..... | New Haven |
| McElman, H. W. | Boston Univ., '10..... | Meriden |
| McFarland, D. W. | Univ. N. Y., '85..... | Greens Farms |
| McGaughey, J. D. | Jefferson, '10..... | Wallingford |
| McGinley, W. E. | P. & S., Balt., '14..... | New London |
| McGovern, E. F. | Univ. Balt., '01..... | Bridgeport |
| McGrath, J. H. | Yale, '08..... | Waterbury |
| McGuire, F. J. | Yale, '97..... | New Haven |
| McGuire, W. C. | Yale, '09..... | New Haven |
| McIntosh, E. F. | Yale, '97..... | New Haven |

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| McIntosh, J. F. | Putnam |
| McKee, F. L. | P. & S., N. Y., '99.....Hartford |
| McKendree, C. A., B.A., Dartmouth, '07 .. | Dartmouth, '10.....New York City |
| McLarney, T. J. | P. & S., Balt., '97.....Waterbury |
| McLaughlin, J. H. | P. & S., Balt., '09.....Jewett City |
| McLaury, F. H. | P. & S., N. Y., '95.....Westport |
| McLinden, J. J. | Univ. Penn., '98.....Waterbury |
| McNeil, R. | Yale, '62.....South Salem, N. Y. |
| McPartland, P. F. | Balt. Med. Coll., '05.....Hartford |
| McPherson, S. H. | Tufts, '13.....Hartford |
| McQueen, A. S. | Yale, '01.....Branford |
| McQueeney, A. | Yale, '05.....Bridgeport |
| Mead, K. C. | Wom. Med. Coll., Pa., '88.....Middletown |
| Meagber, W. F. | Univ. Vt., '99.....Hartford |
| Meek, J. A. | McGill Univ., '75.....Norwalk |
| Meeks, H. A. | Bellevue, '90.....Meriden |
| Mendillo, A. J. | Yale, '07.....New Haven |
| Mercer, C. H. | Md. Med. Coll., '05.....Ansonia |
| Merrill, W. T., B.A., Dartmouth, '87 | Dartmouth, '90.....Mattapan, Mass. |
| Metcalf, E. H. | Jefferson, '14.....Rockville |
| Meyers, A. H. | Med. Chi., Phila., '03.....Mystic |
| Miles, H. S., Ph.G., N. Y., '88 | P. & S., N. Y., '91.....Bridgeport |
| Miller, G. R. | P. & S., Balt., '86.....Hartford |
| Miller, J. R. | Johns Hopkins, '11.....Hartford |
| Miller, W. R. | Albany, '98.....Hartford |
| Minor, G. M. | L. I. Hosp. Coll., '85.....Waterford |
| Mitchell, J. T. | Univ. N. Y., '91.....Middletown |
| Molumphy, D. J. | Jefferson, '06.....Hartford |
| Monagan, C. A., B.S., Trinity, '93 | Univ. Penn., '98.....Waterbury |
| Moore, D. DeC. Y. | N. Y. Homeo. Med. Sc., '95, So. Manchester |
| Moore, H. | Univ. Vt., '98.....Stafford Springs |
| Moore, H. D. | Hahn., Phila., '93.....Danbury |
| Moore, H. D. | Bellevue, '97.....Torrington |
| Morgan, W. D., B.A., Trinity, '72 | P. & S., N. Y., '76.....Hartford |
| Moriarty, J. L. | Harvard, '96.....Waterbury |
| Morrell, F. A. | L. I. Hosp. Coll., '85.....Putnam |
| Morris, W. H. | Johns Hopkins, '12.....U. S. Army |
| Morrissey, M. J. | P. & S., Balt., '97.....Hartford |
| Morrissey, W. T., B.A., Holy Cross Coll. .. | Baltimore, '09.....New Britain |
| Morse, A. | Johns Hopkins, '06.....New Haven |
| Moser, O. A. | Yale, '02.....Rocky Hill |
| Mountain, J. H. | Jefferson, '96.....Middletown |
| Mullins, S. F. | Bellevue, '06.....Danbury |
| Munger, C. E., Ph.B., Yale, '80 | P. & S., N. Y., '83.....Waterbury |
| Murdock, T. P. | Balt. Med., '10.....Meriden |
| Murphy, B. P. | Jefferson, '96.....Putnam |
| Murphy, J. | Univ. Penn., '95.....Middletown |
| Murphy, J. A. | N. Y. Univ., '97.....New Haven |
| Murphy, J. E. | Med. Chi. Pbi., '09.....Hartford |
| Murphy, W. G. | Albany Med. Coll., '90.....Hartford |
| Murray, H. F., Jr. | Jefferson, '16.....New Haven |
| Murray, T. J. | Univ. Md. Med., '10.....New London |
| Nadler, A. G., B.A., Yale, '93 | Yale, '96.....New Haven |
| Nabum, L. H., Ph.B., Yale | Yale, '16.....New Haven |
| Naylor, J. H. | Univ. Vt., '95.....Hartford |

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| Nemoitin, J. | P. & S., N. Y., '05..... | Stamford |
| Nettleton, F. I., Ph.B., Yale, '94 | Yale, '97..... | Shelton |
| Nettleton, I. LaF. | L. I. Hosp. Coll., '98..... | Bridgeport |
| Neumann, H. A. | L. I. Hosp. Coll., '09..... | Bridgeport |
| Newton, C. B. | Yale, '56..... | Stafford Springs |
| Nichols, R. W., Ph.B., Yale, '08 | Johns Hopkins, '12..... | Montwese |
| Nickerson, N., | N. Y. Med. Coll., '57..... | Meriden |
| Nickum, J. S. | Tufts, '18..... | Bridgeport |
| Nolan, D. A., Ph.G., Phil., '93 | Med. Chir., Phila., '95..... | Middletown |
| Nolan, J. M. | P. & S., Balt., '94..... | Westport |
| North, J. H. | L. I. Hosp. Coll., '73..... | West Cornwall |
| Notkins, L. A. | Yale, '03..... | New Haven |
| Noxon, G. H. | Balt. Med. Coll., '93..... | Darien |
| Nugent, H. W. | Hahn, Phila., '10..... | New Haven |
| | | |
| Ober, G. E. | Univ. Vt., '90..... | Bridgeport |
| O'Brien, F. J. | Fordham, '13..... | Middletown |
| O'Brien, J. F. | Yale, '08..... | Niantic |
| O'Brien, J. F. | Univ. Vt., '13..... | Hartford |
| O'Brien, T. F. | Md. Med. Coll., '16..... | Hartford |
| O'Brien, W. H. J., Ph.B., Yale, '08 | Yale, '12..... | New Haven |
| O'Connell, J. G. | Tufts, '17..... | Bridgeport |
| O'Connell, T. S. | P. & S., Balt., '92..... | East Hartford |
| O'Connor, P. T. | Bellevue, '92..... | Waterbury |
| O'Flaherty, E. P. | Cornell, '01..... | Hartford |
| O'Hara, B. A. | Bellevue, '82..... | Waterbury |
| O'Hara, W. J. A. | P. & S., Balt., '93..... | Bridgeport |
| O'Loughlin, T. F. | Univ. N. Y., '96..... | Rockville |
| Oman, A. S. | Glasgow, Scotland, '99..... | Southington |
| Onderdonk, H. J. | Univ. N. Y., '97..... | East Hartford |
| O'Neill, O. | Jefferson, '04..... | Willimantic |
| O'Neil, W. H. | Balt. Med. Coll., '11..... | Ansonia |
| Osborn, G. W., B.A., Yale, '84 | P. & S., N. Y., '87..... | Bridgeport |
| Osborn, S. H., C.P.H., Harvard, '15 | Tufts, '14..... | Hartford |
| Oshorne, O. T., M.A., Yale, '99 | Yale, '84..... | New Haven |
| O'Shaughnessy, E. J. | Bellevue, '99..... | New Canaan |
| Otis, F. N. | Tufts, '18..... | Meriden |
| Otis, I. S. | George Washington Univ., '17.... | Meriden |
| Otis, S. D. | Univ. N. Y., '77..... | Meriden |
| Outerson, A. M. | Jefferson, '06..... | Hartford |
| Outerson, R. | Jefferson, '02..... | Windsor Locks |
| Overlock, S. B., B.A., Colby, '86 | Bellevue, '89..... | Pomfret |
| Owens, W. T. | Univ. Vt., '99..... | Hartford |
| | | |
| Paine, R. C. | Dartmouth, '00..... | Thompson |
| Page, C. I. | P. & S., N. Y., '90..... | Litchfield |
| Page, C. W. | Harvard, '10..... | Hartford |
| Pardanyi, E. J. | Budapest Univ., Hungary..... | Bridgeport |
| Park, C. E. | Yale, '81..... | New Haven |
| Park, P. A. | Iowa, '10..... | Bristol |
| Parker, E. O., B.A., Harvard, '91 | P. & S., N. Y., '96..... | Greenwich |
| Parker, J. W. | Yale, '06..... | Hartford |
| Parlato, M. A. | Yale, '08..... | Derby |
| Parmelee, E. K. | L. I. Hosp. Coll., '89..... | Ansonia |
| Partree, H. T., B.A., Yale, '87 | Yale, '92..... | Torrington |

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| Pasuth, B. C. | Univ. Md., '16..... | Bridgeport |
| Patterson, D. C. | P. & S., Balt., '06..... | Bridgeport |
| Peck, F. J. | Univ. Mich., '92..... | Ansonia |
| Peck, R. E., Ph.B., Yale, '90 | Yale, '93..... | New Haven |
| Peckham, L. C. | Wom. Med. Coll., Pa., '85..... | New Haven |
| Pendleton, C. E. | Yale, '03..... | Colchester |
| Perkins, C. H. | P. & S., N. Y., '91..... | Norwich |
| Perreault, J. N. | Tufts, '07..... | Danielson |
| Perry, E. F. | L. I. Hosp. Coll., '97..... | Putnam |
| Perry, M. J. | Wom. Med. Coll., N. Y., '03..... | Norwalk |
| Peters, H. LeB., B.A., Univ. N. B. | McGill, '07..... | Bridgeport |
| Petrocelli, G. G. | Univ. Naples, '05..... | Waterbury |
| Phelps, C. D., B.A., Amherst, '89; | | |
| M.A., Amherst, '97 | P. & S., N. Y., '95..... | West Haven |
| Phelps, S. E. | McGill, '99..... | Farmington |
| Phillips, A. N. | P. & S., N. Y., '83..... | Stamford |
| Phillips, F. L., Ph.B., Yale, '02 | Yale, '06..... | New Haven |
| Phillips, K. T. | Tufts, '19..... | Putnam |
| Pierce, E. W. | Univ. N. Y., '85 | Meriden |
| Pierson, J. C. | Tufts, '03..... | Hartford |
| Pierson, S. | P. & S., N. Y., '81..... | Stamford |
| Pike, E. R. | Univ. Mich., '98..... | East Woodstock |
| Pinney, A. W. | Hahn. Med. Coll., Phila., '00..... | Norfolk |
| Pinney, R. W. | P. & S., N. Y., '88..... | Derby |
| Pitman, E. P., B.A., Dart., '86 | Dartmouth, '91..... | New Haven |
| Platt, D. P. | N. Y. Univ. & Bell. Hosp., '09..... | Stamford |
| Platt, W. L. | P. & S., N. Y., '81..... | Torrington |
| Plumstead, M. W. | Jefferson, '87..... | East Haddam |
| Plunkett, T. F. | L. I. Coll. Hosp., '08..... | Derby |
| Pomeroy, N. A. | P. & S., N. Y., '96..... | Waterbury |
| Pons, L. J. | Univ. Vt., '85..... | Devon |
| Porter, D. W., B.A., Yale, '08 | Harvard, '12..... | New Haven |
| Porter, I. N., B.A., Lincoln, '90 | Yale, '93..... | New Haven |
| Porter, W., Jr. | Chicago Med. Coll., '81..... | Hartford |
| Potter, F. E. | P. & S., N. Y., '89..... | Portland |
| Powers, J. T. H. | P. & S., Balt., '10..... | Bridgeport |
| Pratt, A. M. | Bellevue, '92..... | Deep River |
| Pratt, E. | P. & S., N. Y., '87..... | Torrington |
| Pratt, L. I. | Que., '79..... | Taftville |
| Pratt, N. T., B.A., Trinity, '94; | | |
| M.A., Trinity, '97 | Yale, '04..... | Bridgeport |
| Prince, A. L. | Yale, '10..... | Wethersfield |
| Purdy, A. M. | Univ. Mich., '84..... | Mystic |
| Purinton, C. O., Ph.B., Yale, '97 | Yale, '00..... | U. S. Army |
| Purney, J. | Balt. Med. Coll., '06..... | New Britain |
| Pyle, F. W., B.A., Yale, '97 | P. & S., N. Y., '02..... | Bridgeport |
| Quaglia, M. | N. Y. Homeo., '16..... | Hartford |
| Quinlan, R. V. | Balt. Med. Coll., '10..... | Meriden |
| Quinn, J. F. | Balt. Med. Coll., '06..... | Bridgeport |
| Quinn, R. J. | P. & S., Balt., '13..... | Waterbury |
| Quintard, E. | P. & S., N. Y., '87..... | Norfolk |
| Radom, F. | Wom. Med. Coll., '12..... | Hartford |
| Rand, R. F., Ph.B., Yale, '95 | Johns Hopkins, '00..... | New Haven |

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| Randall, W. S., Ph.B., Yale, '83 | P. & S., N. Y., '86 | Shelton |
| Reade, E. G. | Jefferson, '16 | Watertown |
| Reardon, W. F. | Bellevue, '09 | Hartford |
| Reeks, T. E. | Univ. Md., '01 | New Britain |
| Reich, U. S. | Univ. Va., '09 | Bridgeport |
| Reidy, D. D. | Med. Cbi., Phila., '99 | Winsted |
| Reidy, M. J. | P. & S., N. Y., '10 | Winsted |
| Reilly, F. H. | Yale, '97 | New Haven |
| Reilly, J. M. | Yale, '78 | New Haven |
| Reilly, W. A. | Bellevue, '98 | Naugatuck |
| Reinert, E. G. | Balt. Med. Coll., '95 | Hartford |
| Reynolds, H. S. | Albany Med., '14 | Hartford |
| Reynolds, H. St.C. | Yale, '10 | New Haven |
| Rice, R. W. | P. & S., Balt., '09 | South Manchester |
| Rice, W. E. | Univ. Mich., '72 | Stamford |
| Richardson, D. A. | Yale, '81 | Derby |
| Rinde, J. H., N. Dakota, '02 | Johns Hopkins, '08 | Middletown |
| Rindge, M. P. | P. & S., Cleveland, '05 | Madison |
| Ring, H. W., B.A., Bowdoin, '79; M.A., Bowdoin, '82 | Me. Med. Coll., '87 | New Haven |
| Riordan, M. D. | Univ. Vt., '12 | Waterbury |
| Rising, H. B. | Yale, '95 | South Glastonbury |
| Robbins, C. H. | Balt. Med. Coll., '95 | Redlands, Cal. |
| Robbins, G. O. | Yale, '79 | Waterbury |
| Robbins, J. W. | Bellevue, '80 | Naugatuck |
| Roberts, E. R. | Bowdoin, '13 | Bridgeport |
| Robinson, J. | P. & S., N. Y., '98 | New Britain |
| Robinson, M. P. | Yale, '95 | Windsor Locks |
| Robinson, P. S., Ph.B., Yale, '89 | Yale, '91 | New Haven |
| Roch, E. | Victoria School, Montreal, North Grosvenordale | |
| Roche, T. J. | P. & S., Balt., '11 | Bridgeport |
| Rockwell, T. F. | Univ. N. Y., '81 | Rockville |
| Rodman, C. S. | P. & S., N. Y., '68 | Waterbury |
| Rogers, J. F. | Yale, '05 | Wilton |
| Rogers, O. F., Jr., B.A., Harvard, '08 | Harvard, '12 | New Haven |
| Rogers, P. H. | Yale, '12 | West Haven |
| Rogers, T. W. | P. & S., N. Y., '90 | New London |
| Ronayne, F. J. | Yale, '04 | U. S. Army |
| Rooney, J. F. | Balt. Med. Coll., '03 | Hartford |
| Root, E. K. | Univ. N. Y., '79 | Hartford |
| Root, J. E., B.S., Boston Univ., '76 | P. & S., N. Y., '83 | Hartford |
| Rowe, M. J. | P. & S., Balt., '96 | Bridgeport |
| Rowley, A. M. | Univ. Vt., '97 | Hartford |
| Rowley, J. C., B.A., Harvard, '02 | Harvard, '06 | Hartford |
| Rowley, R. L. | Yale, '03 | Hartford |
| Ruland, F. D. | P. & S., N. Y., '89 | Westport |
| Russ, H. C., B.A., Yale, '02 | Johns Hopkins, '06 | Hartford |
| Russell, E. | Univ. Penn., '04 | Waterbury |
| Russell, G. W. | Bellevue, '96 | Waterbury |
| Russell, T. H., Ph.B., Yale, '06 | Yale, '10 | New Haven |
| Russell, W. S. | Yale, '80 | Wallingford |
| Russo, J. D., Ph.B., Yale, '12 | Yale, '16 | New Haven |
| Ryan, P. J. | Niagara, '98 | Hartford |
| Ryan, T. M., B.A., Loyola Coll. | Balt. Med. Coll., '02 | Torrington |
| Ryder, R. H. | P. & S., Balt., '13 | Waterbury |

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| Sagarino, J. F. | P. & S., N. Y., '13..... | Hartford |
| Sanford, C. E. | Yale, '06..... | New Haven |
| Sanford, L. C., B.A., Yale, '90 | Yale, '93..... | New Haven |
| Sanford, W. H. | Balt. Med. Coll., '95..... | New Haven |
| Sansone, N. M. | Denver Med. Coll., '02..... | Bridgeport |
| Scarhrough, M. McR., B.A., Univ. of Oregon, '02; M.A., Yale, '05 | Yale, '07..... | New Haven |
| Schaefer, J. | Tufts, '17..... | Hartford |
| Schavoir, F. | P. & S., Balt., '87..... | Stamford |
| Scholl, R. F. | Yale, '12..... | New Haven |
| Schulz, H. S. | Hahn., Phila., '01..... | Bridgeport |
| Scofield, E. J. S. | Univ. N. C., '08..... | Danbury |
| Scrimgeour, A. | L. I. Coll. Hosp., '09 | Bridgeport |
| Seahury, R. B. | Harvard, '18..... | New Haven |
| Sedgwick, J. T. | Univ. N. Y., '81..... | Litchfield |
| Segnalla, E. | Yale, '12..... | New Haven |
| Segur, G. C. | P. & S., N. Y., '82..... | Hartford |
| Shafer, A. | Univ. Penn., '18..... | Hartford |
| Shannon, T. I. | Balt. Med., '99..... | Falls Village |
| Sharpe, E. T. | Univ. N. Y., '95..... | Derby |
| Sharpe, H. R. | Univ. Vt., '00..... | Manchester |
| Shea, D. E. | Loyola, '17..... | Hartford |
| Shea, J. F. | P. & S., Balt., '11..... | Bridgeport |
| Sheahan, M. J. | Yale, '96..... | New Haven |
| Sheahan, W. L. | P. & S., Balt., '12..... | New Haven |
| Sheehan, M. T. | Yale, '10..... | Wallingford |
| Shelton, G. A., M.A. (Hon.), Yale, '91 | Yale, '69..... | Shelton |
| Sherer, H. C. | Univ. N. Y., '92..... | South Norwalk |
| Sherrill, G. | P. & S., '91..... | Stamford |
| Shirk, S. M. | Hahn., Phila., '97..... | Stamford |
| Simmons, W. N. | Univ. Vt., '89..... | Tolland |
| Simonds, C. E. | Univ. N. Y., '97..... | Willimantic |
| Simonson, L. | Tufts, '08..... | Bridgeport |
| Simonton, F. F. | Me. Med. Sc., '03..... | Thompsonville |
| Simpson, F. T., B.A., Yale, '79 | Bowdoin, '84..... | Hartford |
| Skiff, F. S. | Univ. N. Y., '88..... | Falls Village |
| Skiff, S. E. | Hahn., Phila., '03..... | New Haven |
| Skiff, W. C. | Yale, '91..... | New Haven |
| Slattery, M. D. | Yale, '93..... | New Haven |
| Sloan, T. G. | P. & S., N. Y., '99..... | South Manchester |
| Smail, M. L. | Univ. Vt., '93..... | New London |
| Smirnow, M. R. | Yale, '06..... | New Haven |
| Smith, A. C. | P. & S., Balt., '10..... | Danbury |
| Smith, C. F. | N. Y. Homeo. Coll., '84..... | Wallingford |
| Smith, D., B.A., Yale, '96 | Yale, '99..... | Bridgeport |
| Smith, D. P., B.A., Yale, '10 | Yale, '12..... | Meriden |
| Smith, E. H., B.A., Amherst, '85 | P. & S., N. Y., '89..... | Redding |
| Smith, E. L. | Yale, '96..... | Waterbury |
| Smith, E. T., M.A., Trinity, '03 Hon. | Yale, '97..... | Hartford |
| Smith, E. W., B.A., Yale, '78 | McGill, Mont., '82..... | Meriden |
| Smith, F. DeW. | Hahn., '10..... | Guilford |
| Smith, F. L. | Univ. N. Y., '75..... | Stafford Springs |
| Smith, F. L. | Alhany, '83..... | Bridgeport |
| Smith, F. M. | Univ. Vt., '11..... | Willimantic |
| Smith, F. S., B.A., Yale, '79 | Yale, '82..... | Chester |

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| Smith, G. A., B.A., Yale, '03 | Johns Hopkins, '07..... | Long Hill |
| Smith, G. M., B.A., Yale, '01 | P. & S., N. Y., '05..... | Waterbury |
| Smith, H. H. | Jefferson, '77..... | New Haven |
| Smith, M. | Univ. N. Y., '83..... | New Haven |
| Smith, S. R. | Med. Chir. Phil., '16..... | Bridgeport |
| Smith, W. E. | Univ. Mich., '10..... | Stamford |
| Smykowski, B. L. | Balt. Med., '11..... | Bridgeport |
| Smyth, H. E. | McGill Univ., '84..... | Bridgeport |
| Sohn, B. J. | Boston Univ., '15..... | Norwich |
| Soltz, T. | Jefferson, '11..... | New London |
| Sperry, F. N. | Yale, '94..... | New Haven |
| Spicer, E. | Yale, '05..... | Waterbury |
| Spier, S. L. | Yale, '04..... | New Haven |
| Sprague, C. H. | P. & S., N. Y., '04..... | Bridgeport |
| Stahl, W. M. | Univ. Md., '14..... | Danbury |
| Standish, F. B. | Yale, '03..... | New Haven |
| Standish, J. H. | Univ. N. Y., '95..... | Hartford |
| Stanley, C. E. | Univ. Penn., '76..... | Portland |
| Stanton, J. G., B.A., Amherst, '70 | Wurtzburg, '73..... | New London |
| Starr, R. S., B.A., Trinity, '97; | | |
| M.A., Trinity, '00 | P. & S., N. Y., '01..... | Hartford |
| Staub, G. E. | L. I. Hosp. Coll., '93..... | New Milford |
| Staub, J. H. | L. I. Hosp. Coll., '99..... | Stamford |
| Steadman, W. G. | Bellevue, '74..... | Southington |
| Steele, H. M., Ph.B., Yale, '94 | Johns Hopkins, '02..... | New Haven |
| Steiner, W. R., B.A., Yale, '92; | | |
| M.A., Yale, '95 | Johns Hopkins, '98..... | Hartford |
| Stern, C. S., B.A., C. C. N. Y., '88 | Bellevue, '91..... | Hartford |
| Stetson, J. E. | Yale, '81..... | New Haven |
| Stetson, P. R. | Yale, '02..... | New Haven |
| Stevens, C. N. | Tufts, '98..... | West Cornwall |
| Stevens, F. W. | Yale, '00..... | Bridgeport |
| Stewart, H. E. | Yale, '10..... | New Haven |
| Stillman, C. R. | P. & S., N. Y., '04..... | Mystic |
| St. Lawrence, A. J., Ph.B., Yale..... | Fordham, '18..... | New Haven |
| Stockwell, W. M. | Univ. Penn., '04..... | Hartford |
| Stoll, H. F. | P. & S., N. Y., '02..... | Hartford |
| Storrs, E. R. | Jefferson, '90..... | Hartford |
| Strang, R. H. W. | Univ. Penn., '04..... | Bridgeport |
| Stratton, E. A. | N. Y. Univ., '83..... | Danbury |
| Strauss, M. J., B.A., Yale, '14 | P. & S., N. Y., '17..... | New Haven |
| Stretch, J. | Univ. Richmond, Va., '01..... | Simshury |
| Stringfield, O. L., B.S., Wake Forest | | |
| Coll., N. C. | Univ. N. Y., '16..... | Springdale |
| Strobel, J. E. | Temple, '09..... | Hartford |
| Strosser, H. | Univ. Berlin, '84..... | New Britain |
| Sullivan, D. | Univ. N. Y., '97..... | New London |
| Sullivan, D. E. | Balt. Med., '10..... | South Norwalk |
| Sullivan, D. F., B.A., Niagara Univ., '89; | | |
| LL.D., Niagara Univ., '20 | Niagara Univ., '91..... | Hartford |
| Sullivan, J. B., Yale, '03 | Yale, '06..... | New Haven |
| Sullivan, J. F., B.A., Yale, '90 | P. & S., N. Y., '94..... | New Haven |
| Sullivan, M. J. | Cornell, '00..... | Meriden |
| Sunderland, P. U. | N. Y. Hom. Med., '94..... | Danbury |
| Sussler, D. | Fordham, '16..... | Taftville |

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| Swain, H. L. | Yale, '84..... | New Haven |
| Swan, H. C. | Tufts, '03..... | Hartford |
| Sweet, G. C. | P. & S., Balt., '12..... | New Haven |
| Sweet, J. H. T. | Tufts, '12..... | Hartford |
| Sweet, W. N., B.A., Yale, '11 | P. & S., N. Y., '16..... | Wallingford |
| Swenson, A. C. | Yale, '02..... | Waterbury |
| Swett, P. P. | Univ. N. Y., '04..... | Hartford |
| Sword, B. C. | N. Y. Homeo. Med., '18..... | New Haven |
| | | |
| Taft, C. E. | Harvard, '86..... | Hartford |
| Tanner, M. J. | Tufts, '18..... | New Haven |
| Tanner, W. A. | Univ. Vt., '12..... | Brooklyn |
| Taylor, C. C., B.A., Dartmouth | Harvard, '16..... | Bridgeport |
| Taylor, J. C. | Univ. Mich., '91..... | New London |
| Taylor, M. W. | Tufts, '05..... | Hartford |
| Teale, J. E., B.A., Tahor, '85 | Wom. Med. Coll., Pa., '88.... | New Haven |
| Tenney, A. J., Ph.B., Yale, '77 | Yale, '83..... | Branford |
| Terhune, W. B. | Tulane, '15..... | New Haven |
| Thenebe, C. L. | Univ. Penn., '18..... | Hartford |
| Thibault, L. J. | Yale, '00..... | Waterbury |
| Thoms, H. | Yale, '10..... | New Haven |
| Thomson, T. L. | Hahn., Phil., '01..... | Torrington |
| Thompson, E. J. | Wom. Med. Coll., N. Y., Inf., '96, | Hartford |
| Thompson, G. | Me. Med. Coll., '89..... | Taftville |
| Thompson, W. N., B.A., Bates, '88 | Jefferson, '89..... | Hartford |
| Tileston, W., Harvard, '95 | Harvard, '99..... | New Haven |
| Tingley, W. K. | Bellevue, '86..... | Norwich |
| Tinker, W. R. | Univ. N. Y., '80..... | South Manchester |
| Todd, F. P. | Boston Univ., '89..... | Danielson |
| Tolles, B. I., B.A., Yale, '01 | Yale, '04..... | Ansonia |
| Topping, J. R. | Univ. N. Y., '82..... | Noroton |
| Tower, A. A., B.A. | P. & S., N. Y., '19..... | Meriden |
| Townsend, C. R. | Alhany, '95..... | Bridgeport |
| Townshend, R., Ph.B., Yale, '00 | P. & S., N. Y., '05..... | New Haven |
| Tracey, D. W., Ph.B., Yale, '04 | Johns Hopkins, '08..... | Hartford |
| Tracey, W. J. | Univ. N. Y., '89..... | Norwalk |
| Tracey, W. W., Ph.B., Yale, '12; | | |
| M.A., Columbia, '16..... | P. & S., N. Y., '16..... | Norwalk |
| Tracy, R. G. | Yale, '00..... | New Haven |
| Treat, W. H. | Yale, '06..... | Derby |
| Trecartin, D. M. | Dartmouth, '94..... | Bridgeport |
| Truex, E. H. | Univ. Louisville, '08..... | East Hartford |
| Tuch, M. | Bellevue, '06..... | Hartford |
| Tucker, G. E., B.S., Chicago | Med. Chi. Phil., '09..... | Hartford |
| Tukey, F. M., B.A., Bowdoin, '91 | Harvard, '94..... | Bridgeport |
| Turbert, E. J. | Balt. Med. Coll., '04..... | Hartford |
| Turkington, C. H., Ph.B., Yale, '03 | Johns Hopkins, '07..... | Litchfield |
| Turner, A. R., B.A., Amherst, '84 | Univ. Paris, '94..... | Norwalk |
| Turrill, H. S., Ph.B., Yale, '06 | Yale, '10..... | Kent |
| Tuttle, A. L. | Alhany, '88..... | Salisbury |
| Tuttle, C. A., Ph.B., Yale, '88 | Yale, '90..... | New Haven |
| Tuttle, F. J. | Univ. Vt., '98..... | Naugatuck |
| Tynan, J. J. | P. & S., Balt., '07..... | Torrington |

Vail, E. S. N. Y. Homeo. Med. Coll., '82, Thompsonville

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| Vail, G. F., B.S., Villanova, '98 | Univ. Penn., '02..... | Hartford |
| Vail, T. E., Ph.B., Yale, '07 | Johns Hopkins, '11..... | Thompsonville |
| VanCor, C. A. | Univ. Vt., '14..... | Middletown |
| VanStrander, W. H. | Univ. Vt., '00..... | Hartford |
| Variell, A. | Bowdoin, '94..... | Waterbury |
| Vastola, A. P. | Fordham, '12..... | Waterbury |
| Verdi, W. F., M.A. (Hon.), Yale, '14 | Yale, '94..... | New Haven |
| Vernlund, C. F., B.S., S. Dak. State, '09 .. | Howard, '14..... | Hartford |
| Vershow, N. | Tufts, '19..... | Hartford |
| Wadhams, S. H. | Yale, '96..... | care Surg. Gen., U. S. Army |
| Waite, F. L. | Bellevue, '88..... | Hartford |
| Waite, R. L., Ph.B., '05 | Johns Hopkins, '09..... | Hartford |
| Wales, F. J. | Univ. N. Y., '97..... | Stepney Depot |
| Walsh, F. W. | P. & S., Balt., '85..... | Rockville |
| Walsh, J. W. | P. & S., Balt., '07..... | Hartford |
| Walsh, T. P. | Univ. Vt., '02..... | Middletown |
| Ward, H. W. | Balt. Med. Coll., '03..... | Winsted |
| Ward, J. W. | P. & S., Balt., '07..... | Hartford |
| Warner, C. N. | Jefferson, '96..... | Litchfield |
| Warner, G. H. | Yale, '97..... | Bridgeport |
| Wason, D. B. | P. & S., N. Y., '00..... | Bridgeport |
| Waterhouse, H. E. | P. & S., N. Y., '02..... | Bridgeport |
| Waterman, P. | Cornell, '02..... | Hartford |
| Waters, J. B. | Univ. Vt., '90..... | Hartford |
| Watson, W. C. | L. I. Hosp. Coll., '97..... | Bridgeport |
| Watts, J. F. | Georgetown, '12..... | Bridgeport |
| Weadon, W. L. | Va. Med. Coll., '05..... | Bridgeport |
| Weaver, B. S. | Univ. Mich., '10..... | Stamford |
| Weed, A. R. | Univ. Vt., '12..... | New Haven |
| Weed, F. A. | Albany, '12..... | Torrington |
| Weil, A. | Bellevue, '14..... | New Haven |
| Weir, J. M. | Queen's Univ., Kingston, Ont., '91, Hartford | |
| Welch, H. L., B.A., Yale, '94 | Yale, '97..... | New Haven |
| Welch, T. F. | Georgetown, '04..... | Hartford |
| Welch, W. C. | Yale, '77..... | New Haven |
| Weld, S. B., B.A., Dartmouth, '12 | Harvard, '16..... | Hartford |
| Welden, E. B. | P. & S., Balt., '13..... | Bridgeport |
| Weldon, T. H. | Univ. N. Y., '83..... | South Manchester |
| Wells, D. B., B.A., Yale, '07 | Johns Hopkins, '12..... | Hartford |
| Wells, E. A., B.A., Yale, '97 | Johns Hopkins, '01..... | Hartford |
| Wersebe, F. W. | Univ. N. Y., '98..... | Washington |
| Wertheimer, J. | | Waterbury |
| Westervelt, M. Z. | Homeo., N. Y., '99..... | New Haven |
| Wheatley, L. F. | Tufts, '03..... | New Haven |
| Wheeler, F. H., B.A., Yale, '80 | Yale, '82..... | New Haven |
| Wheelock, A. A. | Univ. Vt., '97..... | New Canaan |
| Whipple, B. N. | Yale, '07..... | Bristol |
| White, B. W. | L. I. Hosp. Coll., '86..... | Bridgeport |
| White, H. R. | Yale, '12..... | New Haven |
| White, R. C. | Univ. Vt., '89..... | Willimantic |
| Whiting, L. C. | Md. Med. Coll., '12..... | New Haven |
| Whittemore, E. R., B.A., Yale, '98 | P. & S., N. Y., '02..... | New Haven |
| Wiedman, O. G. | Univ. Penn., '05..... | Hartford |
| Wight, G. D. | Bellevue, '87..... | Bethel |

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| Wilcox, F. S. | Hahn, Phila., '94..... | Norwich |
| Wilkes, L. A. | Univ. Penn., '10..... | Address unknown |
| Williams, F. S. | Northwestern, '05..... | Bridgeport |
| Williams, C. M. | P. & S., N. Y., '98..... | New York |
| Wilmot, L. H. | Univ. N. Y., '91..... | Ansonia |
| Wilson, F. E. | Univ. Vt., '11..... | New London |
| Wilson, J. C. | Univ. Vt., '04..... | Hartford |
| Wilson, L. A. | Yale, '10..... | Meriden |
| Winne, W. N. | Univ. N. Y., '97..... | New Haven |
| Winship, E. O. | Univ. Vt., '00..... | New London |
| Winternitz, M. C., B.A., Johns Hopkins; M.A., Yale | Johns Hopkins, '07..... | New Haven |
| Wiseman, K. F. | Wom. Med. Coll., Pa., '12.... | Middletown |
| Witter, O. R. | P. & S., N. Y., '01..... | Hartford |
| Wolff, A. J. | Tex. Med. Coll., '76, Bellevue, '83, | Hartford |
| Woodford, C. N. | Univ. Louisville, '08..... | Naugatuck |
| Woodhouse, L. W. | Jefferson, '16..... | Terryville |
| Woodruff, T. A..... | McGill, '88..... | New London |
| Woodward, H. B., B.S., Wesleyan, '08 ... | Johns Hopkins, '12..... | Terryville |
| Wooster, C. M. | Univ. N. Y., '79..... | San Diego, Cal. |
| Worthen, T. W. | Dartmouth, '11..... | Hartford |
| Wright, F. W. | Bellevue, '80..... | New Haven |
| Wright, G. H. | P. & S., N. Y., '94..... | New Milford |
| Wright, J. W., B.A., Amherst, '77 | Univ. N. Y., '80..... | Bridgeport |
| Wright, L. H. | Univ. Vt., '18..... | New Haven |
| Wunderly, W. S. | Tufts, '19..... | Bridgeport |
| Wurtenburg, W. C., Ph.B., Yale, '89..... | Yale, '93..... | New Haven |
| Yergason, R. M. | P. & S., Balt., '09..... | Hartford |
| Young, C. B. | P. & S., N. Y., '94..... | Middletown |
| Young, J. F. | P. & S., N. Y., '13..... | New London |
| Young, T. H. | Yale, '95..... | New Haven |
| Yudkin, A. M., Ph.B., Yale, '14 | Yale, '17..... | New Haven |
| Zink, C. E., B.A., | Balt. Univ., '00..... | Middletown |
| Zonn, S. I. | Tufts, '17..... | Bridgeport |

